

FORMEDIUM

CREATING THE CULTURE FOR DISCOVERY™



2022/23 PRODUCT CATALOGUE
SACCHAROMYCES CEREVISIAE

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41	Boron	66	SD Agar / 2% Raffinose
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43	Calcium Pantothenate	67	SD Agar / 3.3% Succinate
44	Copper	67	SD Broth / 3.3% Succinate
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SACCHAROMYCES CEREVISIAE

Saccharomyces Cerevisiae media offered by Formedium™ can be divided into six groups

Complex Media: YPD, YEP, YPAD, YPL, GAL, MAL and Sporulation Media.

Yeast Nitrogen Base (YNB) media in many different formulations.

Synthetic Defined (SD) media based upon YNB and with several carbon sources like glucose, galactose and raffinose.

Synthetic Complete (SC) media based upon YNB and with several carbon sources like glucose, galactose and raffinose and supplemented by a complete mixture of amino acids.

Amino Acid "Drop Out" supplements based upon five different formulations.

Yeast Media Components

All media are formulated as described in the Cold Spring Harbor Lab Manual for Yeast Genetics, Kaiser, C., et al., Methods in Yeast Genetics, (Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, 1994) and the Difco Manual 11th ed.



Altruism in a single celled organism

Dr. Campbell Gourlay (Kent Fungal Group)

COMPLEX MEDIA

Saccharomyces Cerevisiae Complex Media

Complex yeast media containing a homogeneous blend of Peptone, Yeast Extract and Glucose in optimal concentration for growing most *Saccharomyces Cerevisiae* strains and other yeasts.

This product category includes:

- 6 YPD Agar
- 6 YPD Broth
- 7 YEP Agar
- 8 YEP Broth
- 9 YPAD Agar
- 10 YPAD Broth
- 11 YPL Agar with Lactose
- 11 YPL Broth with Lactose
- 12 MAL Indicator Medium
- 13 GAL Indicator Medium
- 14 Sporulation Medium
- 15 Pre-Sporulation Medium

YPD AGAR

SKU	Size
CCM0102	250g
CCM0105	500g
CCM0110	1000g

YPD medium (YEPD) is a complex medium for routine growth.

Formula	g/l
Yeast extract	10
Peptone	20
Glucose	20
Agar	20

Suspend 70 gram powdered medium in 1 litre distilled water

Store dry at room temperature



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YPD BROTH

SKU	Size
CCM0202	250g
CCM0205	500g
CCM0210	1000g
CCM0260	6 x 1kg

YPD medium (YEPD) is a complex medium for routine growth.

Formula	g/l
Yeast extract	10
Peptone	20
Glucose	20

Suspend 50 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEP AGAR

SKU	Size
CCM0302	250g
CCM0305	500g
CCM0310	1000g

YEP Medium is based upon YPD but is without dextrose and can be used as a base for making YPD media with an alternate carbon source.

To make YEPG-Medium add 38 ml glycerol per litre YEP medium. Glycerol is a non-fermentable carbon source. Respiratory deficient and ?- or pet mutants will not grow on YPEG.

Formula	g/l
Yeast extract	10
Peptone	20
Agar	20

Suspend 50 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEP BROTH

SKU	Size
CCM0402	250g
CCM0405	500g
CCM0410	1000g

YEP Medium is based upon YPD but is without dextrose and can be used as a base for making YPD media with an alternate carbon source.

To make YEPG-Medium add 38 ml glycerol per litre YEP medium. Glycerol is a non-fermentable carbon source. Respiratory deficient and ?- or pet mutants will not grow on YPEG.

Formula	g/l
Yeast extract	10
Peptone	20

Suspend 30 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YPAD AGAR

SKU	Size
CCM0502	250g
CCM0505	500g
CCM0510	1000g

YPAD Medium (SLANT Medium) is a complex medium used for the production of slants. The adenine is added to inhibit the reversion of *ade1* and *ade2* mutants.

Formula	g/l
Yeast extract	10
Peptone	20
Glucose	20
Adenine Sulfate	0.04
Agar	20

Suspend 70 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YPAD BROTH

SKU	Size
CCM1002	250g
CCM1005	500g
CCM1010	1000g

YPAD Medium (SLANT Medium) is a complex medium used for the production of slants. The adenine is added to inhibit the reversion of *ade1* and *ade2* mutants.

Formula	g/l
Yeast extract	10
Peptone	20
Glucose	20
Adenine Sulfate	0.04

Suspend 50 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YPL AGAR WITH LACTOSE

SKU	Size
YPLA01	250g
YPLA02	500g
YPLA03	1000g

Formula	g/l
Yeast extract	10
Peptone	20
Lactose	20
Adenine Sulfate	0.04
Agar	20

Suspend 70 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YPL BROTH WITH LACTOSE

SKU	Size
YPLB01	250g
YPLB02	500g
YPLB03	1000g

Formula	g/l
Yeast extract	10
Peptone	20
Lactose	20
Adenine Sulfate	0.04

Suspend 50 gram powdered medium in 1 litre distilled water

Store dry at room temperature



MAL INDICATOR MEDIUM

SKU	Size
CCM0602	250g
CCM0603	500g
CCM0610	1000g

MAL Indicator Medium is a fermentation-indicator medium used to distinguish strains that ferment maltose or not. Due to the pH change, the maltose-fermenting strains will change the Bromcresol purple indicator into yellow.

A Bromcresol purple solution (0.4% stock solution in ethanol) of 9 ml per litre medium has to be added prior to autoclavation.

Formula	g/l
Yeast extract	10
Peptone	20
Maltose	20
Agar	20

Suspend 70 gram powdered medium in 1 litre distilled water

Store dry at room temperature



GAL INDICATOR MEDIUM

SKU	Size
CCM0702	250g
CCM0705	500g
CCM0710	1000g

GAL Indicator Medium is used for testing the ability to ferment galactose as a carbon source

A Bromthymol blue solution (0.4% stock solution in water) of 20 ml per litre medium has to be added prior to autoclavation.

Formula	g/l
Yeast extract	10
Peptone	20
Galactose	20
Agar	20

Suspend 70 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SPORULATION MEDIUM

SKU	Size
CCM0802	250g
CCM0805	500g
CCM0810	1000g

Based on its constituents and the presence of Potassium acetate Sporulation medium is used to induce the induction of spores forming by yeast.

Suspend 40.2 gram powdered medium in 1 litre distilled water

Store dry at room temperature.

Formula	g/l
Yeast extract	10
Glucose	0.2
Potassium Acetate	10
Agar	20



PRE-SPORULATION MEDIUM

SKU	Size
CCM0902	250g
CCM0905	500g
CCM0910	1000g

Pre-Sporulation Medium is used for strains that do not sporulate well when grown on sporulation medium directly. Cells are grown 1-2 days on pre-sporulation medium before transferring them to sporulation medium.

Formula	g/l
Yeast extract	10
Glucose	100
Potassium Acetate	20
Agar	2

Suspend 150 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE MEDIA

Saccharomyces Cerevisiae Yeast Nitrogen Base

Yeast Nitrogen Base media have been prepared according to the formulae of Wickerham (1943-51) and Burkholder (1943). Their research on the nutritional requirements of yeast strains resulted in the formulation of Yeast Nitrogen Base (YNB). YNB is a well defined composition of salts, vitamins, amino acids and a nitrogen source for a vigorous growth of Saccharomyces Cerevisiae.

Besides the original formulation of YNB, Formedium™ produces many variations of this medium without one or more components. These YNB without 'X' media provide the researcher the possibility to grow yeast cells in the absence of a certain component or to replace a particular component.



Yeast Nitrogen Base without Amino Acids

Pages 20 - 34



Yeast Nitrogen Base without Amino Acids and without Ammonium Sulphate

Pages 35 - 60



This product category includes:

- 17 Yeast Carbon Base
- 17 Yeast Morphology Agar
- 18 Yeast Nitrogen Base
- 18 Yeast Vitamin Free Base
- 19 Yeast Potassium Nitrate Nitrogen Base

YEAST CARBON BASE

SKU	Size
CYN0601	100g
CYN0602	250g
CYN0605	500g
CYN0610	1000g

Yeast Carbon Base without Nitrogen source is used to test the ability of yeasts to assimilate nitrogen by the addition of various nitrogen sources. Histidine, Methionine and Tryptophan concentrations has been reduced to 10% of their original concentration as present in Yeast Nitrogen Base.

For technical data please see pages 98 - 99.

Suspend 11.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST MORPHOLOGY AGAR

SKU	Size
CYN0101	100g
CYN0102	250g
CYN0105	500g
CYN0110	1000g

Yeast Agar is a rich well defined medium including Ammonium Sulfate and Asparagine as a nitrogen source and is used for typical colonial morphology. The medium provides a carbon- and nitrogen source in sufficient concentrations including amino acids, vitamins, trace elements and salts resulting in a good development of yeast colonies.

For technical data please see pages 98 - 99.

Suspend 35.0 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE

SKU	Size
CYN0201	100g
CYN0202	250g
CYN0205	500g
CYN0210	1000g

Yeast Nitrogen Base is based upon the formulation of Yeast Agar except that Ammonium Sulfate is the sole nitrogen source and that addition of carbon source is required. The medium may be used to test carbon assimilation in the presence of a carbon source like glucose, galactose or raffinose.

For technical data please see pages 98 - 99.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST VITAMIN FREE BASE

SKU	Size
CYN0701	100g
CYN0702	250g
CYN0705	500g
CYN0710	1000g

Yeast Nitrogen Base Vitamin Free is based upon the formulation of Yeast Nitrogen base except that all vitamins are omitted. The medium is used to test the requirement of essential vitamins.

For technical data please see pages 98 - 99.

Suspend 17.0 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST POTASSIUM NITRATE NITROGEN BASE

SKU	Size
CYN0301	100g
CYN0302	250g
CYN0305	500g
CYN0310	1000g

Yeast Potassium Nitrate Nitrogen Base contains Potassium Nitrate as a sole nitrogen source to test nitrogen assimilation. The addition of a carbon source is required. Histidine, Methionine and Tryptophan concentrations has been reduced to 10% of their original concentration as present in Yeast Nitrogen Base.

Yeasts which have grown on a rich medium like Yeast Agar may carry a reserve of nitrogen in the form of protein. To avoid errors due to this reserve of nitrogen it is advised to make two serial transfers in the medium. Seven days after the first inoculation the second inoculation is made in the same medium. If a positive result is obtained after seven days, the yeast cells assimilates nitrate as sole nitrogen source.

For technical data please see pages 98 - 99.

Suspend 2.7 gram powdered medium in 1 litre distilled water

Store dry at room temperature

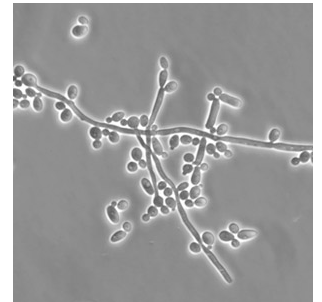


YEAST NITROGEN BASE WITHOUT AMINO ACIDS

Saccharomyces Cerevisiae Yeast Nitrogen Base without Amino Acids

Yeast Nitrogen Base media have been prepared according to the formulae of Wickerham (1943-51) and Burkholder (1943). Their research on the nutritional requirements of yeast strains resulted in the formulation of Yeast Nitrogen Base (YNB). YNB is a well defined composition of salts, vitamins, amino acids and a nitrogen source for a vigorous growth of *Saccharomyces Cerevisiae*.

Besides the original formulation of YNB, Formedium™ produces many variations of this medium without one or more components. These YNB without 'X' media provide the researcher the possibility to grow yeast cells in the absence of a certain component or to replace a particular component.



* Please note all formulations within this product range are based upon Yeast Nitrogen Base without Amino Acids and without the Component/Components selected.

This product category includes:

21 Yeast Nitrogen Base without Amino acids

Yeast Nitrogen Base without Amino Acids and without:

- 22 para-Amino Benzoic acid
- 22 Biotin
- 23 Boron
- 23 Calcium
- 24 Calcium Pantothenate
- 24 Copper
- 25 Copper and without Iron
- 25 Folic acid
- 26 Folic Acid and Riboflavin. LoFlo
- 27 Inositol
- 27 Iodine
- 28 Iron
- 28 Magnesium
- 29 Manganese
- 29 Molybdene
- 30 Nicotinic Acid
- 30 Phosphate
- 31 Phosphate, supplemented with KCl
- 32 Pyridoxine
- 32 Riboflavin
- 33 Sodium
- 33 Thiamine
- 34 Zinc

YEAST NITROGEN BASE WITHOUT AMINO ACIDS

SKU	Size
CYN0401	100g
CYN0402	250g
CYN0405	500g
CYN0410	1000g

Yeast Nitrogen Base without amino acids (YNB w/o AA) is used for selecting yeasts based on amino acid and carbohydrate requirements. In Yeast Nitrogen Base without amino acids Ammonium sulphate is included as a readily available nitrogen source for nitrogen assimilation. The medium includes all other vitamins, mineral salts and trace elements required for a vigorous growth of yeast cells.

Compared to full Yeast Nitrogen Base medium, Yeast Nitrogen Base without amino acids lacks Histidine, Methionine and Tryptophan. In combination with Drop Out medium supplement mixtures Yeast Nitrogen Base without Amino acids provides an excellent medium to cultivate and to select auxotrophic strains of yeast that requires the addition of essential nutrients like amino acids and/or vitamins.

The addition of a carbon source like glucose, galactose or raffinose is required. Synthetic Dextrose Minimal medium (SD medium) and Synthetic Complete medium (SC medium) are based upon Yeast Nitrogen Base w/o amino acids and are complemented with glucose, galactose and raffinose as carbon sources.

For technical data please see pages 104 - 105.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT PARA-AMINO BENZOIC ACID

SKU	Size
CYN4101	100g
CYN4102	500g
CYN4110	1000g

Para-Amino benzoic acid is omitted from this formulation of Yeast Nitrogen base w/o Amino acids to provide the researcher the possibility to grow yeast cells in the absence of para-Amino Benzoic acid or to replace this vitamin.

For technical data please see pages 104 - 105.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT BIOTIN

SKU	Size
CYN3101	100g
CYN3102	500g
CYN3110	1000g

Biotin is omitted from this formulation of Yeast Nitrogen base w/o Amino acids to provide the researcher the possibility to grow yeast cells in the absence of biotin or to replace this vitamin.

For technical data please see pages 104 - 105.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT BORON

SKU	Size
CYN1501	100g
CYN1502	500g
CYN1510	1000g

Boric acid, HBO₃, is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of Boron or to replace this element.

For technical data please see pages 104 - 105.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT CALCIUM

SKU	Size
CYN2501	100g
CYN2502	500g
CYN2510	1000g

Calcium chloride, CaCl₂ is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of calcium or to replace this element.

For technical data please see pages 104 - 105.

Suspend 6.8 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT CALCIUM PANTOTHENATE

SKU	Size
CYN3301	100g
CYN3302	500g
CYN3310	1000g

Calcium-pantothenate is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of calcium-pantothenate or to replace this vitamin.

For technical data please see pages 104 - 105.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT COPPER

SKU	Size
CYN0901	100g
CYN0902	250g
CYN0905	500g
CYN0910	1000g

Cupric sulphate, $CuSO_4 \cdot 5H_2O$, is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of copper or to replace this element.

For technical data please see pages 104 - 105.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT COPPER AND WITHOUT IRON

SKU	Size
CYN1301	100g
CYN1302	500g
CYN1310	1000g

Cupric sulphate, $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$, and Ferric chloride, FeCl_3 are omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of copper and iron or to replace these elements.

For technical data please see pages 104 - 105.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT FOLIC ACID

SKU	Size
CYN3501	100g
CYN3502	500g
CYN3510	1000g

Folic acid is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of Folic acid or to replace this vitamin.

For technical data please see pages 104 - 105.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT FOLIC ACID AND RIBOFLAVIN. LOFLO

SKU	Size
CYN6501	100g
CYN6502	250g
CYN6505	500g
CYN6510	1000g

Yeast Nitrogen Base w/o Amino acids LoFlo is a low fluorescence YNB type medium.

By omitting Folic acid and Riboflavin from the original YNB w/o Amino acids formulation the result is a very low fluorescence back ground medium.

Yeast Nitrogen Base w/o Amino acids LoFlo is excellent for whole-cell fluorescence experiments and because of its low fluorescence background the fluorescence of cells can be measured directly in the medium.

Yeast Nitrogen Base w/o Amino acids LoFlo is well suited for intracellular pH measurements in cells expressing pHluorin in combination with Raman spectroscopy..

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT INOSITOL

SKU	Size
CYN3701	100g
CYN3702	500g
CYN3710	1000g

Inositol is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of inositol or to replace this vitamin.

For technical data please see pages 104 - 105.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT IODINE

SKU	Size
CYN4901	100g
CYN4902	500g
CYN4910	1000g

Potassium Iodide, KI, is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of Iodine or to replace this element.

For technical data please see pages 104 - 105.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT IRON

SKU	Size
CYN1101	100g
CYN1102	500g
CYN1110	1000g

Ferric chloride, FeCl₃, is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of Iron or to replace this element.

For technical data please see pages 104 - 105.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT MAGNESIUM

SKU	Size
CYN2701	100g
CYN2702	250g
CYN2705	500g

Magnesium sulphate, MgSO₄.7H₂O is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of magnesium or to replace this element.

For technical data please see pages 104 - 105.

Suspend 6.2 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT MANGANESE

SKU	Size
CYN1901	100g
CYN1902	500g
CYN1910	1000g

Manganese sulphate, $MnSO_4 \cdot H_2O$ is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of Manganese or to replace this element.

For technical data please see pages 104 - 105.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT MOLYBDENE

SKU	Size
CYN2101	100g
CYN2102	500g
CYN2110	1000g

Molybdic acid Sodium salt, $MoNa_2O_5 \cdot 2H_2O$ is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of Molybdene or to replace this element.

For technical data please see pages 104 - 105.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT NICOTINIC ACID

SKU	Size
CYN3901	100g
CYN3902	500g
CYN3910	1000g

Nicotinic acid is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of nicotinic acid or to replace this vitamin.

For technical data please see pages 104 - 105.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT PHOSPHATE

SKU	Size
CYN0801	100g
CYN0802	250g
CYN0803	500g
CYN0804	1000g

The absence of phosphate (KH_2PO_4) provides the possibility to include alternative sources of phosphate, like P32 labeled components, or to select an optimal concentration of phosphate for certain yeast cell lines.

For technical data please see pages 104 - 105.

Suspend 5.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT PHOSPHATE, SUPPLEMENTED WITH KCL

SKU	Size
CYN6701	100g
CYN6702	250g
CYN6703	500g
CYN6704	1kg

The absence of phosphate (KH_2PO_4) provides the possibility to include alternative sources of phosphate, like P32 labeled components, or to select an optimal concentration of phosphate for certain yeast cell lines.

By omitting Potassium DiHydrogen Phosphate (KH_2PO_4), not only Phosphate ($\text{PO}_4\text{-3}$) but also Potassium (K^+) is omitted.

As a result yeasts are not only limited in Phosphate, but also in Potassium. This might cause problems in osmolarity and intercellular Potassium ion concentrations finally resulting in poor cell growth and low yields.

To avoid this problem an extra 550 mg/l (7.35 mM) of KCl is added. By adding this concentration of KCl the original concentration of K^+ as present in YNB is restored. The extra addition of Chlorine is in almost all cases no problems to your cells.

Suspend 6.5 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT PYRIDOXINE

SKU	Size
CYN4301	100g
CYN4302	500g
CYN4310	1000g

Pyridoxine HCl is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of pyridoxine or to replace this vitamin.

For technical data please see pages 104 - 105.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT RIBOFLAVIN

SKU	Size
CYN4501	100g
CYN4502	250g
CYN4505	500g

Riboflavin is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of nicotinic acid or to replace this vitamin.

For technical data please see pages 104 - 105.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT SODIUM

SKU	Size
CYN2901	100g
CYN2902	500g
CYN2910	1000g

Sodium chloride, NaCl is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of Sodium or to replace this element.

For technical data please see pages 104 - 105.

Suspend 6.8 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT THIAMINE

SKU	Size
CYN4701	100g
CYN4702	500g
CYN4710	1000g

Thiamine HCl is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of thiamine or to replace this vitamin.

For technical data please see pages 104 - 105.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT ZINC

SKU	Size
CYN2301	100g
CYN2302	500g
CYN2310	1000g

Zinc sulphate, $ZnSO_4 \cdot 7H_2O$ is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of Zinc or to replace this element.

For technical data please see pages 104 - 105.

Suspend 6.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT AMMONIUM SULPHATE

Saccharomyces Cerevisiae Yeast Nitrogen Base without Amino Acids and without Ammonium Sulphate

Yeast Nitrogen Base media have been prepared according to the formulae of Wickerham (1943-51) and Burkholder (1943). Their research on the nutritional requirements of yeast strains resulted in the formulation of Yeast Nitrogen Base (YNB). YNB is a well defined composition of salts, vitamins, amino acids and a nitrogen source for a vigorous growth of Saccharomyces Cerevisiae.



Besides the original formulation of YNB, Formedium™ produces many variations of this medium without one or more components. These YNB without 'X' media provide the researcher the possibility to grow yeast cells in the absence of a certain component or to replace a particular component.

* Please note all formulations within this product range are based upon Yeast Nitrogen Base without Amino Acids, without Ammonium Sulphate and without the Component/Components selected.

This product category includes:

- 36 Translucent K+ free medium”, YNB w/o Amino acids and without Ammonium sulphate and w/o Potassium
- 37 Translucent K+ free medium”, YNB w/o Amino acids and without Ammonium sulphate and w/o Potassium and w/o Folic acid and w/o Riboflavin
- 38 Yeast Nitrogen Base without Amino Acids, and without Ammonium Sulphate

Yeast Nitrogen Base without Amino Acids, without Ammonium Sulphate, and without:

- 36 para-Amino Benzoic acid
- 37 Biotin
- 39 Iron
- 42 Boron
- 43 Calcium
- 44 Calcium Pantothenate
- 45 Copper
- 46 Folic Acid
- 47 Folic Acid and Riboflavin
- 48 Inositol
- 49 Iodine
- 50 Iron
- 51 Magnesium
- 52 Manganese
- 53 Molybdene
- 54 Nicotinic Acid
- 55 Phosphate, supplemented with KCl
- 56 Pyridoxine
- 57 Riboflavin
- 58 Sodium
- 59 Thiamine
- 60 Zinc

TRANSLUCENT K+ FREE MEDIUM”, YNB W/O AMINO ACIDS AND WITHOUT AMMONIUM SULPHATE AND W/O POTASSIUM

SKU	Size
CYN7501	100g
CYN7505	500g
CYN7510	1000g

In Translucent K+ free medium ammonium phosphate (0.92 g/l) substitutes for potassium phosphate to reduce the amount of potassium to a minimum.

For technical data please see pages 106 - 107.

Suspend 1.6 gram powdered medium in 1 litre distilled water

Store dry at room temperature



TRANSLUCENT K+ FREE MEDIUM”, YNB W/O AMINO ACIDS AND WITHOUT AMMONIUM SULPHATE AND W/O POTASSIUM AND W/O FOLIC ADID AND W/O RIBOFLAVIN

SKU	Size
CYN10001	100g
CYN10005	500g
CYN10010	1000g

In Translucent K+ free medium ammonium phosphate (0.92 g/l) substitutes for potassium phosphate to reduce the amount of potassium to a minimum. Both Folic acid and Riboflavin are omitted from the medium to make it suitable for fluorescence measurements with yeast cultures.

For technical data please see pages 106 - 107.

Suspend 1.6 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, AND WITHOUT AMMONIUM SULPHATE

SKU	Size
CYN0501	100g
CYN0502	250g
CYN0505	500g
CYN0510	1000g

east Nitrogen Base without Amino Acids and without Ammonium Sulfate has the same formulation as Yeast Nitrogen Base without Amino Acids except that Ammonium Sulfate as a source of Nitrogen has been omitted to test the ability of yeast cells to assimilate different nitrogen sources for example Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT PARA-AMINO BENZOIC ACID

SKU	Size
CYN4201	100g
CYN4202	500g
CYN4210	1000g

Para-Amino benzoic acid is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of para-Amino Benzoic acid or to replace this vitamin.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT BIOTIN

SKU	Size
CYN3201	100g
CYN3202	500g
CYN3210	1000g

Biotin is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of biotin or to replace this vitamin.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT BORON

SKU	Size
CYN1601	100g
CYN1602	500g
CYN1610	1000g

Boric acid, HBO_3 , is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of Boron or to replace this element.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



GHS07 Skin & Eye Irritation

YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT CALCIUM

SKU	Size
CYN2601	100g
CYN2602	500g
CYN2610	1000g

Calcium chloride, CaCl₂ is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of calcium or to replace this element.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.8 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT CALCIUM PANTOTHENATE

SKU	Size
CYN3401	100g
CYN3402	500g
CYN3410	1000g

Calcium-pantothenate is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of calcium-pantothenate or to replace this vitamin.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT COPPER

SKU	Size
CYN1001	100g
CYN1002	500g
CYN1010	1000g

Cupric sulphate, $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$, is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of copper or to replace this element.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE, WITHOUT COPPER AND WITHOUT IRON

SKU	Size
CYN1701	100g
CYN1702	500g
CYN1710	1000g

Cupric sulphate, $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$, and Ferric chloride, FeCl_3 are omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of copper and iron or to replace these elements.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT FOLIC ACID

SKU	Size
CYN3601	100g
CYN3602	500g
CYN3610	1000g

Folic acid is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of Folic acid or to replace this vitamin.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT FOLIC ACID AND RIBOFLAVIN

SKU	Size
CYN6201	100g
CYN6202	250g
CYN6205	500g
CYN6210	1000g

Yeast Nitrogen Base w/o Amino acids w/o Ammonium sulphate LoFlo is a low fluorescence YNB type medium.

By omitting Folic acid and Riboflavine from the original YNB w/o Amino acids formulation the result is a very low fluorescence back ground medium.

Yeast Nitrogen Base w/o Amino acids w/o Ammonium sulphate LoFlo is excellent for whole-cell fluorescence experiments and because of its low fluorescence background the fluorescence of cells can be measured directly in the medium.

Yeast Nitrogen Base w/o Amino acids w/o Ammonium sulphate LoFlo is well suited for intracellular pH measurements in cells expressing pHluorin in combination with Raman spectroscopy.

Suspend 1.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT INOSITOL

SKU	Size
CYN3801	100g
CYN3802	500g
CYN3810	1000g

Inositol is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of inositol or to replace this vitamin.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT IODINE

SKU	Size
CYN1801	100g
CYN1802	500g
CYN1810	1000g

Potassium Iodide, KI, is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of Iodine or to replace this element.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different.

For technical data please see pages 106 - 107.

Suspend 1.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT IRON

SKU	Size
CYN1201	100g
CYN1202	500g
CYN1210	1000g

Ferric chloride, FeCl₃, is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of Iron or to replace this element.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT MAGNESIUM

SKU	Size
CYN2801	100g
CYN2802	500g
CYN2810	1000g

Magnesium sulphate, $MgSO_4 \cdot 7H_2O$ is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of magnesium or to replace this element.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.2 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT MANGANESE

SKU	Size
CYN2001	100g
CYN2002	500g
CYN2010	1000g

Manganese sulphate, $MnSO_4 \cdot H_2O$ is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of Manganese or to replace this element.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT MOLYBDENE

SKU	Size
CYN2201	100g
CYN2202	500g
CYN2210	1000g

Molybdic acid Sodium salt, $\text{MoNa}_2\text{O}_5 \cdot 2\text{H}_2\text{O}$ is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of Molybdene or to replace this element.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT NICOTINIC ACID

SKU	Size
CYN4001	100g
CYN4002	500g
CYN4010	1000g

Nicotinic acid is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of nicotinic acid or to replace this vitamin.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT PHOSPHATE, SUPPLEMENTED WITH KCL

SKU	Size
CYN6801	100g
CYN6802	250g
CYN6803	500g
CYN6804	1kg

The absence of phosphate (KH_2PO_4) provides the possibility to include alternative sources of phosphate, like P32 labeled components, or to select an optimal concentration of phosphate for certain yeast cell lines.

By omitting Potassium DiHydrogen Phosphate (KH_2PO_4), not only Phosphate ($\text{PO}_4\text{-3}$) but also Potassium (K^+) is omitted.

As a result yeasts are not only limited in Phosphate, but also in Potassium. This might cause problems in osmolarity and intercellular Potassium ion concentrations finally resulting in poor cell growth and low yields.

To avoid this problem an extra 550 mg/l (7.35 mM) of KCl is added. By adding this concentration of KCl the original concentration of K^+ as present in YNB is restored. The extra addition of Chlorine is in almost all cases no problems to your cells.

Suspend 1.5 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT PYRIDOXINE

SKU	Size
CYN4401	100g
CYN4402	500g
CYN4410	1000g

Pyridoxine HCl is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of pyridoxine or to replace this vitamin.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT RIBOFLAVIN

SKU	Size
CYN4601	100g
CYN4602	500g
CYN4610	1000g

Riboflavin is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of nicotinic acid or to replace this vitamin.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT SODIUM

SKU	Size
CYN3001	100g
CYN3002	500g
CYN3010	1000g

Sodium chloride, NaCl is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of Sodium or to replace this element.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.8 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT THIAMINE

SKU	Size
CYN4801	100g
CYN4802	500g
CYN4810	1000g

Thiamine HCl is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of thiamine or to replace this vitamin.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST NITROGEN BASE WITHOUT AMINO ACIDS, WITHOUT AMMONIUM SULPHATE AND WITHOUT ZINC

SKU	Size
CYN2401	100g
CYN2402	500g
CYN2410	1000g

Zinc sulphate, $ZnSO_4 \cdot 7H_2O$ is omitted from this formulation of Yeast Nitrogen base without Amino acids to provide the researcher the possibility to grow yeast cells in the absence of Zinc or to replace this element.

Ammonium sulphate, as a source of Nitrogen, has been omitted to test the ability of yeast cells to assimilate different nitrogen sources like Potassium nitrate.

For technical data please see pages 106 - 107.

Suspend 1.8 gram powdered medium in 1 litre distilled water

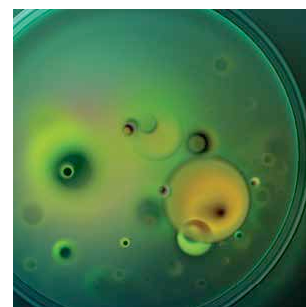
Store dry at room temperature



SYNTHETIC DEFINED MEDIA

Saccharomyces Cerevisiae Synthetic Minimal Media (SD Media)

Synthetic Minimal Media (SD media) are based upon Yeast Nitrogen Base without Amino Acids and supplemented with a carbon source like glucose, galactose, raffinose, succinate or a combination of carbon sources. The Synthetic Minimal Media are available with or without Agar premixed.



This product category includes:

- 62 SD Agar / 2% Glucose
- 63 SD Broth / 2% Glucose
- 64 SD Agar / 2% Glucose w/o Phosphate (KH₂PO₄)
- 64 SD Broth / 2% Glucose w/o Phosphate (KH₂PO₄)
- 65 SD Agar / 2% Galactose
- 65 SD Broth / 2% Galactose
- 66 SD Agar / 2% Raffinose
- 66 SD Broth / 2% Raffinose
- 67 SD Agar / 3.3% Succinate
- 67 SD Broth / 3.3% Succinate
- 68 SD Agar / 2% Galactose / 1% Raffinose
- 68 SD Broth / 2% Galactose / 1% Raffinose

SD AGAR / 2% GLUCOSE

SKU	Size
CSM0101	100g
CSM0102	250g
CSM0105	500g
CSM0110	1000g

SD Agar / Glucose containing Yeast Nitrogen base without Amino Acids, glucose and agar.

For technical data please see pages 102 - 103.

Suspend 44.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SD BROTH / 2% GLUCOSE

SKU	Size
CSM0201	100g
CSM0202	250g
CSM0205	500g
CSM0210	1000g

SD Broth / Glucose containing Yeast Nitrogen base without Amino Acids and glucose. Agar has been omitted from the original formulation.

For technical data please see pages 102 - 103.

Suspend 26.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SD AGAR / 2% GLUCOSE W/O PHOSPHATE (KH₂PO₄)

SKU	Size
CSM1101	100g
CSM1102	250g
CSM1103	500g
CSM1104	1000g

SD Agar / 2% Glucose w/o Phosphate (KH₂PO₄) is based upon Yeast Nitrogen base without Amino acids including and Glucose plus Agar. The absence of phosphate (KH₂PO₄) provides the possibility to include alternative sources of phosphate, like P32 labeled components, or to select an optimal concentration of phosphate for certain yeast cell lines.

For technical data please see pages 102 - 103.

Suspend 43.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SD BROTH / 2% GLUCOSE W/O PHOSPHATE (KH₂PO₄)

SKU	Size
CSM1201	100g
CSM1202	250g
CSM1203	500g
CSM1204	1000g

SD Broth / 2% Glucose w/o Phosphate (KH₂PO₄) is based upon Yeast Nitrogen base without Amino acids and including glucose. The absence of phosphate (KH₂PO₄) provides the possibility to include alternative sources of phosphate, like P32 labeled components, or to select an optimal concentration of phosphate for certain yeast cell lines.

For technical data please see pages 102 - 103.

Suspend 25.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SD AGAR / 2% GALACTOSE

SKU	Size
CSM0301	100g
CSM0302	250g
CSM0305	500g
CSM0310	1000g

For technical data please see pages 102 - 103.

Suspend 44.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SD BROTH / 2% GALACTOSE

SKU	Size
CSM0401	100g
CSM0402	250g
CSM0405	500g
CSM0410	1000g

For technical data please see pages 102 - 103.

Suspend 26.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SD AGAR / 2% RAFFINOSE

SKU	Size
CSM0501	100g
CSM0502	250g
CSM0505	500g
CSM0510	1000g

For technical data please see pages 102 - 103.

Suspend 44.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SD BROTH / 2% RAFFINOSE

SKU	Size
CSM0601	100g
CSM0602	250g
CSM0605	500g
CSM0610	1000g

For technical data please see pages 102 - 103.

Suspend 26.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SD AGAR / 3.3% SUCCINATE

SKU	Size
CSM0701	100g
CSM0702	250g
CSM0705	500g
CSM0710	1000g

For technical data please see pages 102 - 103.

Suspend 39.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SD BROTH / 3.3% SUCCINATE

SKU	Size
CSM0801	100g
CSM0802	250g
CSM0805	500g
CSM0810	1000g

For technical data please see pages 102 - 103.

Suspend 57.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SD AGAR / 2% GALACTOSE / 1% RAFFINOSE

SKU	Size
CSM0901	100g
CSM0902	250g
CSM0905	500g
CSM0910	1000g

SD Agar / Galactose and Raffinose containing Yeast Nitrogen base without Amino Acids, galactose, raffinose and agar.

For technical data please see pages 102 - 103.

Suspend 54.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SD BROTH / 2% GALACTOSE / 1% RAFFINOSE

SKU	Size
CSM1001	100g
CSM1002	250g
CSM1005	500g
CSM1010	1000g

SD Broth / Galactose and Raffinose containing Yeast Nitrogen base without Amino Acids, galactose and raffinose. Agar has been omitted from the original formulation.

For technical data please see pages 102 - 103.

Suspend 36.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



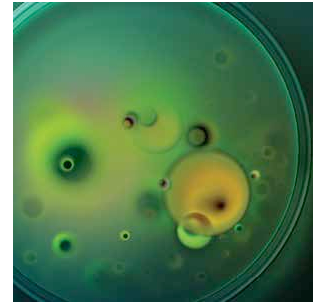
SYNTHETIC COMPLETE MEDIA

Saccharomyces Cerevisiae Synthetic Complete Media

Synthetic Complete Medium (SC medium) is based upon Yeast Nitrogen Base supplemented with a carbon source and in which each of the commonly encountered auxotrophies is supplemented by a complete mixture of amino acids and vitamins. The amino acid, vitamin mixture contains all possible supplements, i.e. nothing is dropped out in contrast to "Drop Out" mixtures. Cultures on SC Media combined with cultures on Yeast Nitrogen Base without Amino Acids in combination with drop out mixtures can be used to select for auxotrophies as in Yeast Genetics.

Formedium™ provides SC media supplemented with a carbon source like glucose, galactose, raffinose, succinate or a combination of carbon sources. The SC media are available with or without Agar premixed.

SC Media amino acid and vitamin supplement is available as a separate mixture as well for addition to other types of yeast media to supplement auxotrophies.



This product category includes:

- 71 SC Agar / 2% Glucose
- 71 SC Broth / 2% Glucose
- 72 SC Agar / 2% Galactose
- 72 SC Broth / 2% Galactose
- 73 SC Agar / 2% Raffinose
- 73 SC Broth / 2% Raffinose
- 74 SC Agar / 3.3% Succinate
- 74 SC Broth / 3.3% Succinate
- 75 SC Agar / 2% Galactose / 1% Raffinose
- 75 SC Broth / 2% Galactose / 1% Raffinose

SC AGAR / 2% GLUCOSE

SKU	Size
CSC0101	100g
CSC0102	250g
CSC0105	500g
CSC0110	1kg

For technical data please see pages 100 - 101.

Suspend 46.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SC BROTH / 2% GLUCOSE

SKU	Size
CSC0201	100g
CSC0202	250g
CSC0205	500g
CSC0210	1kg

For technical data please see pages 100 - 101.

Suspend 28.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SC AGAR / 2% GALACTOSE

SKU	Size
CSC0301	100g
CSC0302	250g
CSC0305	500g
CSC0310	1kg

For technical data please see pages 100 - 101.

Suspend 46.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SC BROTH / 2% GALACTOSE

SKU	Size
CSC0401	100g
CSC0402	250g
CSC0405	500g
CSC0410	1kg

For technical data please see pages 100 - 101.

Suspend 28.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SC AGAR / 2% RAFFINOSE

SKU	Size
CSC0501	100g
CSC0502	250g
CSC0505	500g
CSC0510	1kg

For technical data please see pages 100 - 101.

Suspend 46.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SC BROTH / 2% RAFFINOSE

SKU	Size
CSC0601	100g
CSC0602	250g
CSC0605	500g
CSC0610	1kg

For technical data please see pages 100 - 101.

Suspend 28.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SC AGAR / 3.3% SUCCINATE

SKU	Size
CSC0701	100g
CSC0702	250g
CSC0705	500g
CSC0710	1kg

For technical data please see pages 100 - 101.

Suspend 41.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SC BROTH / 3.3% SUCCINATE

SKU	Size
CSC0801	100g
CSC0802	250g
CSC0805	500g
CSC0810	1kg

For technical data please see pages 100 - 101.

Suspend 59.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SC AGAR / 2% GALACTOSE / 1% RAFFINOSE

SKU	Size
CSC0901	100g
CSC0902	250g
CSC0905	500g
CSC0910	1kg

For technical data please see pages 100 - 101.

Suspend 56.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



SC BROTH / 2% GALACTOSE / 1% RAFFINOSE

SKU	Size
CSC1001	100g
CSC1002	250g
CSC1005	500g
CSC1010	1kg

For technical data please see pages 100 - 101.

Suspend 38.9 gram powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST MEDIA COMPONENTS

Formedium™ manufactures a large range of media for yeast, fungi and bacterial cell cultures. Part of these media are nutritional elements like Agar, Casamino acids, Glucose, Peptone, Tryptone and Yeast extract.

These nutrients are also offered by Formedium™ as separate media components to allow the researcher to select the optimal concentration of each component for a specific strain.

All products offered are used by Formedium™ are of high quality and purity and used to produce an extended range of cell culture media.



This product category includes:

- 77 Lee's Medium
- 77 D(+)-Sucrose
- 78 SDS Micro-Pellets
- 79 Tris Glycine SDS Transfer Buffer 10X
- 80 VL6 Medium including Glucose, Animal Component Free (ACF)
- 81 VL6 Medium without Glucose, Animal Component Free (ACF)
- 82 Agar
- 83 Lee's Multi-differential Agar (LMDA) Medium
- 84 Synthetic Seawater Salts
- 84 L- Arabinose
- 85 Malt Extract
- 85 Agar Granulated, Bacteriological Grade
- 86 Casamino Acids
- 86 D(+) - Galactose
- 87 D(+) - Glucose Anhydrous
- 87 D(+) - Lactose monohydrate
- 88 Soya Peptone
- 89 Peptone
- 90 Potato Extract
- 90 D(+) - Raffinose Pentahydrate
- 91 Sodium Chloride
- 91 D(+) - Sorbitol
- 92 Tryptone
- 93 Yeast Extract, Powder
- 94 Yeast Mold Broth
- 95 Yeast Mold Agar

LEE'S MEDIUM

SKU	Size
LEES0500	500g
LEES1000	1kg

Suspend 17.09g in 1L of Distilled or De-ionised Water



D(+)-SUCROSE

SKU	Size
SDS0100	100g
SDS0500	500g
SDS1000	1kg

Assay > 99.7%

Empirical Formula (Hill Notation): $C_{12}H_{22}O_{11}$

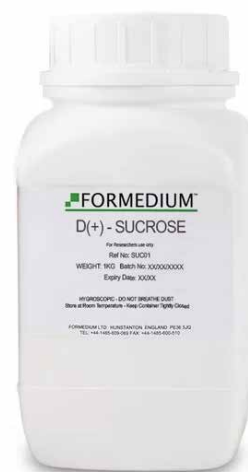
Molecular Weight: 342.3 handling without the mess and odor of powders. High purity SDS is additive free. Easy to dissolve in water for denaturing proteins prior to gel electrophoresis. Store at room temperature.

A fine white crystalline quality with excellent properties for cell culture.

Store at room temperature.

Keep Tightly Closed

CAS Number: 57-50-1



SDS MICRO-PELLETS

SKU	Size
SDS0100	100g
SDS0500	500g
SDS1000	1kg

(Sodium dodecyl (lauryl) sulfate)

Molecular Formula: $\text{CH}_3(\text{CH}_2)_{11}\text{OSO}_3\text{Na}$

New micro-pellets allow convenient weighing and handling without the mess and odor of powders. High purity SDS is additive free. Easy to dissolve in water for denaturing proteins prior to gel electrophoresis. Store at room temperature.



Specification Test Results

Assay (calculated on anhydrous)	Min. 99%
Assay (C12 compounds)(calc.on anhydrous)	Min. 99%
IR Spectrum	Passes test
Acidity or alkalinity	Max. 0.05 meq/g
Loss on drying (100°C)	Max. 1.0%
Cl (Chloride)	Max. 0.03%
PO ₄ (Phosphate)	Max. 10ppm
Cu (Copper)	Max. 5ppm
Fe (Iron)	Max. 1ppm
Pb (Lead)	Max. 5ppm

Store at Room Temperature

Keep Tightly Closed

Cas No.: 151-21-3



GHS07 Skin & Eye Irritation



GHS05 Corrosive

TRIS GLYCINE BUFFER 10X

SKU	Size
TGS0500	500ml
TGS1000	1 Litre
TGS5000	5 Litre

Tris Glycine Transfer Buffer 10X sterile stock solution.

Dilute 100ml Tris Glycine Transfer Buffer 10X with 900 ml deionised water to make 1 litre of Tris Glycine Buffer. Final concentration is 25 mM Tris Base, 0.192 M Glycine and 1g/l SDS.

pH, 20 C. 8.33 ± 0.05 at 1 x use rate

Final concentration after diluting		
TRIS	0.25M30.3	g/L
Glycine	1.92M144.1	g/L
SDS	10.0	g/L

Store at room temperature
Keep away from light



GHS07 Skin & Eye Irritation

VL6 MEDIUM INCLUDING GLUCOSE, ANIMAL COMPONENT FREE (ACF)

SKU	Size
VL60101	250g
VL60102	1kg
VL60103	6 x 1kg

VL6 is a complex medium for cultivation of *Discoideum dyctyostelium* based on Vegetable Peptone.

Formedium Ltd have recognised the need for a range of meat-free products. This has led to the development of VL6, an animal component free alternative medium compared to traditional Dicty media such as HL5 and HL5C.

VL6 is composed of a Vegetable peptone providing high molecular weight peptides and proteins as a nitrogen source. Yeast Extract is a source of vitamins, co-factors and carbohydrates. A Phosphate buffer is present to inhibit acidification of the medium during cell growth.

As most vegetable peptones contain almost no Tryptophane VL6 is supplemented with an extra quantity of this amino acid and some other amino acids. Essential trace elements and vitamins as present in FM and SIH media are added for those Dicty cultures needing additional nutritional for starting up vigorous growth or protein synthesis.

Suspend 35.95g in 1L of Distilled or De-ionised Water.

Components		
Vegetable Peptone	10	g/L
Yeast extract	7	g/L
Potassium Dihydrogen Phosphate	1.2	g/L
Disodium Hydrogen Phosphate	0.35	g/L
Glucose	12	g/L
Trace elements	0.1	g/L
VL6 Amino acid supplement	5.3	g/L
	35.95	



The materials used in the production are in compliance with the European Directive 75/318/EEC as amended by Directive 1999/82/EC.

Therefore Formedium takes the position that this product is free of any risk in terms of Bovine Spongiform Encephalopathy (BSE) or Transmissible Spongiform Encephalopathy (TSE).

HYGROSCOPIC Store at Room Temperature
DO NOT BREATHE DUST Keep Container Tightly Closed
WARNING GHS-07 SKIN & EYE IRRITATION

VL6 MEDIUM WITHOUT GLUCOSE, ANIMAL COMPONENT FREE (ACF)

SKU	Size
VL60201	250g
VL60202	1kg
VL60203	6 x 1kg

VL6 is a complex medium for cultivation of *Discoideum dictyostelium* based on Vegetable Peptone.

Formedium Ltd have recognised the need for a range of meat-free products. This has led to the development of VL6, an animal component free alternative medium compared to traditional Dicty media such as HL5 and HL5C.

VL6 is composed of a Vegetable peptone providing high molecular weight peptides and proteins as a nitrogen source. Yeast Extract is a source of vitamins, co-factors and carbohydrates. A Phosphate buffer is present to inhibit acidification of the medium during cell growth.

As most vegetable peptones contain almost no Tryptophan VL6 is supplemented with an extra quantity of this amino acid and some other amino acids. Essential trace elements and vitamins as present in FM and SIH media are added for those Dicty cultures needing additional nutritionals for starting up vigorous growth or protein synthesis.

Suspend 23.95g in 1L of Distilled or De-ionised Water.

Components		
Vegetable Peptone	10	g/L
Yeast extract	7	g/L
Potassium Dihydrogen Phosphate	1.2	g/L
Disodium Hydrogen Phosphate	0.35	g/L
Glucose	12	g/L
Trace elements	0.1	g/L
VL6 Amino acid supplement	5.3	g/L
	35.95	



GHS07 Skin & Eye Irritation

The materials used in the production are in compliance with the European Directive 75/318/EEC as amended by Directive 1999/82/EC.

Therefore Formedium takes the position that this product is free of any risk in terms of Bovine Spongiform Encephalopathy (BSE) or Transmissible Spongiform Encephalopathy (TSE).

HYGROSCOPIC Store at Room Temperature
DO NOT BREATHE DUST Keep Container Tightly Closed
WARNING GHS-07 SKIN & EYE IRRITATION

AGAR

SKU	Size
AGA01	250g
AGA02	500g
AGA03	1000g
AGA04	6 x 1kg

Agar is natural product derived from seaweed. During the production process all impurities are carefully removed to obtain an agar with a high gel strength, excellent clarity and low mineral content. The result is an agar well suited for cell cultures.

Store dry at room temperature



LEE'S MULTI-DIFFERENTIAL AGAR (LMDA) MEDIUM

SKU	Size
LMDA01	1kg
LMDA05	5kg
LMDA10	10kg
LMDA25	25kg

Lee's Multi-Differential Agar (LMDA) Medium is a complex nutrient medium that will detect most microorganisms commonly encountered in a brewery.

Beer is not a very appropriate medium for the development of bacteria due to its characteristics, such as the low quantity of available nutrients, the presence of alcohol, carbon dioxide and sulphur dioxide, as well as low conservation temperatures. However, growth of bacteria and wild yeast can contribute unwanted flavors to wort and beer. The degree to which it can affect flavor depends on the stage of brewing at which it occurs.

The main types of wort and beer spoilage bacteria include: Flavobacterium, Enterobacter, Escherichia, Lactobacillus, Pediococcus, Acetobacter, Acetomonas, and Zymomonas. Wild yeast strains come in two groups: Saccharomyces and Non-Saccharomyces. Both bacteria and wild yeast can cause turbidity, haze, slime formation, over-attenuation, souring, and off flavours in the product.

LMDA Medium is used for bacteria and yeast detection / enumeration. Colonies of acid producing bacteria will be easily identified by the development of a clear zone around them because of their ability to dissolve calcium carbonate present in LMDA medium. Furthermore, colonies identification will be facilitated by the characteristic color reactions. Bromocresol green turns yellow to indicate acid production. Both ingredients work together to differentiate between true acid producers and slight acid producers. LMDA plates can be used aerobically or anaerobically depending on which bacteria the brewer wants to detect. Incubation is done under anaerobic conditions, except when acetic acid bacteria are of major interest, then aerobic incubation is used.

An antifungal such cycloheximide can be added to suppress culture yeast growth, therefore making this media selective to bacteria.



LMDA Medium	mg/l
Glucose	14,850.8
Agar	15,000.0
Bromocresol green	22.0
Calcium carbonate	5,000.0
Calcium pantothenate	2,000.0
Citric Acid	1,100.0
Dipotassium phosphate, K2HPO4	742.5
Ferrous sulfate	10.0
Magnesium sulfate anhydrous	144.3
Manganese sulfate	10.0
Monopotassium phosphate, KH2PO4	742.5
Tryptone	20,000.0
Sodium chloride	10.0
Tomato powder	9,701.7
Tween 80	500.0
Yeast extract	14,850.8
	84,684.7

SYNTHETIC SEAWATER SALTS

SKU	Size
FSS10	1kg

Applications:

Environmental & Aqua-culture: for the preparation of synthetic seawater to culture micro algae.

Store dry at room temperature



84

L- ARABINOSE

SKU	Size
ARA001	100g
ARA005	500g
ARA010	1kg

C₅H₁₀O₅ = 150.13

Purity HPLC 99%

Purity TLC Single spot

Water < 0.3%

White Crystalline powder

Store dry at room temperature



GHS07 Skin & Eye Irritation

MALT EXTRACT

SKU	Size
MAL03	1kg

Malt extract is prepared from Malt by extracting the soluble products from sprouted grain.

The product contains a mix of carbohydrates (mainly maltose) and growth factors.

Solubility in water at 3 % Complete
pH (3 % solution) 4.8 - 5.8

Loss on drying \leq 6.0 %

Reducing sugars (as maltose) \geq 60.0 %

Residue on ignition \leq 4.5 %

Chloride (as NaCl) \leq 1.0 %

Store dry at room temperature



AGAR GRANULATED, BACTERIOLOGICAL GRADE

85

SKU	Size
AGR02	250g
AGR05	500g
AGR10	1000g
AGR60	6 x 1kg

Agar Granulated, Bacteriological grade is a fine granulated agar with excellent characteristics for bacteriological growth.

Due to the fine granule structure of this agar dusting while handling is very low.

Store dry at room temperature



CASAMINO ACIDS

SKU	Size
CAS01	250g
CAS02	500g
CAS03	1000g
CAS04	6 x 1kg

Casamino Acids are manufactured by a controlled acid hydrolysis of casein. Hydrolysis is not completed until all the nitrogen in the casein is converted to amino acids or other compounds of relative chemical simplicity. As a result of the acid hydrolysis process all vitamins and growth factors present in casein are destroyed.

Due to the low sodium chloride concentration ForMedium™ Casamino Acids are well suited for cultivation of yeast cells.

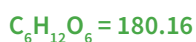
Store dry at room temperature



86

D(+)- GALACTOSE

SKU	Size
GAL01	100g
GAL02	250g
GAL03	500g
GAL04	1kg
GAL05	6 x 1kg



Purity HPLC >99%

Water < 0.3%

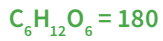
White Crystalline powder

Store dry at room temperature



D(+) - GLUCOSE ANHYDROUS

SKU	Size
GLU01	250g
GLU02	500g
GLU03	1000g
GLU04	6 x 1kg



A fine white crystalline quality with excellent properties for cell culture.

Store dry at room temperature



D(+) - LACTOSE MONOHYDRATE

SKU	Size
LAC02	1000g
LAC03	6 x 1kg



Complies to Ph. Eur.

White Crystalline powder

Store dry at room temperature



SOYA PEPTONE

SKU	Size
VPEP01	250g
VPEP02	500g
VPEP03	1000g
VPEP04	6 x 1kg

Soya Peptone is a papaic digest of defatted soybean flour and is a well-balanced source of essential amino acids, carbohydrates and vitamins in cell cultures.

Soya Peptone is used for growth of a wide variety of bacteria and yeasts in cell cultures and is often combined with Tryptone or Peptone for a rapid and abundant growth of cells.

This plant peptone is classified animal-free by Formedium Ltd. Based on the manufacturing protocol, we attest that no animal raw materials are prescribed for use in the production of this product, nor are any of the raw materials derived from animal products.

Soya Peptone is classified animal free, GMO free (according to the European Directive 2001/18/CE)

Store dry at room temperature



PEPTONE

SKU	Size
PEP01	250g
PEP02	500g
PEP03	1000g
PEP04	6 x 1kg

Peptone is a spray dried powder, manufactured by a controlled enzymatic hydrolysis of animal tissue. The most commonly used enzymes are pepsin, papain and pancreatin. The latter containing trypsin.

Pepsin will cut the peptide chain anywhere there is a phenylalanine or leucine bond.

Papain cuts in the peptide chain adjacent to arginine, lysine, phenylalanine and glycine. Pancreatin has its action at arginine, lysine, tyrosine, tryptophan, phenylalanine and leucine bonds.

The tissues are hydrolysed to produce straw coloured peptones which are highly nutritious and clearly soluble in water. Peptones contain a mix of peptides, free amino acids and growth factors.

Due to the low sodium chloride concentration ForMedium™ Pepton is well suited for cultivation of yeast cells.

Store dry at room temperature



POTATO EXTRACT

SKU	Size
PTE01	250g
PTE02	500g
PTE03	1000g
PTE04	6 x 1kg

Potato extract is a mixture of potato proteins, manufactured by controlled enzymatic hydrolysis. The extract is an excellent nitrogen source for bacteria, yeasts and fungi. Potato extract is rich in vitamins and minerals and supports a vigorous growth of micro-organisms.

Store dry at room temperature



D(+) - RAFFINOSE PENTAHYDRATE

SKU	Size
RAF01	100g
RAF02	250g
RAF03	500g
RAF04	1kg

C₁₈H₃₂O₁₆.5H₂O = 594.5

Purity HPLC >99%

White powder

Store dry at room temperature



SODIUM CHLORIDE

SKU	Size
NAC02	1000g
NAC03	6 x 1kg

NaCl = 58.4

Complies to Ph. Eur and USP

Heavy metals < 5 ppm

Ferrocyanides

A fine white crystalline quality with excellent properties for cell culture.

Store dry at room temperature



D(+)-SORBITOL

SKU	Size
SOR02	1kg
SOR03	5kg

C6H14O6 = 182.17

Complies to Ph. Eur.

White crystalline powder.

Store dry at room temperature



TRYPTONE

SKU	Size
TRP01	250g
TRP02	500g
TRP03	1000g
TRP04	6 x 1kg

Enzymatic digest of casein

Tryptone is a pancreatic digest of casein. Casein is the main protein of milk and is a rich source of amino acid nitrogen. Amongst all amino acids especially Tryptophan is present in high concentrations.

Due to the rich nutritional properties, Tryptone is added to media as an accelerator to increase the yield of organisms and is recommended where a rapid and luxuriant growth of micro organisms is required.

Store dry at room temperature



YEAST EXTRACT, POWDER

SKU	Size
YEA01	250g
YEA02	500g
YEA03	1000g
YEA04	6 x 1kg
YEA10	10kg

Yeast Extract is a spray dried extract manufactured by complete autolysis, i.e. a transformation of proteins into peptides, and amino acids, implemented through the proteolytic enzymes present in yeast cells.

The cell membranes are discarded, enabling completely soluble yeast extracts to be obtained. Besides peptides and amino acids yeast extract also contains purine and pyrimidine bases, carbohydrates and water soluble vitamins of B group.

Sodium Chloride concentration of Formedium™Yeast Extract is low and also therefore well suited for cultivation of yeast cells.

Due to its carbohydrate content, typically 10%, yeast extract is not suitable for media intended for the study of sugar fermentation.

Store dry at room temperature



YEAST MOLD BROTH

SKU	Size
YMBR0110	1kg
YMBR1000	10kg

YM Agar and YM Broth are used for cultivating yeasts, molds and other aciduric microorganisms.

YM Broth and YM Agar can be acidified to pH 3.0-4.0 to be used as a screening and enrichment medium for yeasts from populations also containing bacteria and molds.

Formula	g/l
Yeast Extract Powder	3
Malt Extract	3
Peptone	5
Dextrose	10

Final pH 7.0 ± 0.2 at 25°C

Suspend 21 powdered medium in 1 litre distilled water

Store dry at room temperature



YEAST MOLD AGAR

SKU	Size
YMAG0110	1kg
YMAG1000	10kg

YM Agar and YM Broth are used for cultivating yeasts, molds and other aciduric microorganisms.

YM Broth and YM Agar can be acidified to pH 3.0-4.0 to be used as a screening and enrichment medium for yeasts from populations also containing bacteria and molds.

Formula	g/l
Yeast Extract Powder	3
Malt Extract	3
Peptone	5
Dextrose	10
Agar	20

Final pH 7.0 ± 0.2 at 25°C

Suspend 41 powdered medium in 1 litre distilled water

Store dry at room temperature



SACCHAROMYCES CEREVISIAE YEAST NITROGEN BASE TECHNICAL DATA

	Yeast Morphology Agar	Yeast Nitrogen Base	Yeast Potassium Nitrate Nitrogen Base	Yeast Nitrogen Base w/o Amino Acids	Yeast Nitrogen w/o Amino Acids and w/o Ammonium Sulfate	Yeast Carbon Base	Vitamin Free Yeast Base
Nitrogen Source g/l							
Ammonium Sulphate	3.5	5	-	5	-	-	5
Asparagine	1.5	-	-	-	-	-	-
Potassium Nitrate	-	-	0.78	-	-	-	-
Caseine Hydrolysate	-	-	-	-	-	-	-
Carbon Source g/l							
Glucose.H2O	10	-	-	-	-	10	10
Galactose	-	-	-	-	-	-	-
Raffinose	-	-	-	-	-	-	-
Amino Acids mg/l							
Histidine.HCl	10	10	1	-	-	1	10
Methionine	20	20	2	-	-	2	20
Tryptophan	20	20	2	-	-	2	20
Vitamins µg/l							
Biotin	2	2	2	2	2	2	-
Ca-Panthenate	400	400	400	400	400	400	-
Folic Acid	2	2	2	2	2	2	-
Inositol	2000	2000	2000	2000	2000	2000	-
Nicotinic Acid	400	400	400	400	400	400	-
p-Aminobenzoic Acid	200	200	200	200	200	200	-
Pyridoxine HCl	400	400	400	400	400	400	-
Riboflavin	200	200	200	200	200	200	-
Thiamine HCl	400	400	400	400	400	400	-
Trace Elements µg/l							
Boric Acid	500	500	500	500	500	500	500
Copper Sulfate	40	40	40	40	40	40	40
Potassium Iodide	100	100	100	100	100	100	100

	Yeast Morphology Agar	Yeast Nitrogen Base	Yeast Potassium Nitrate Nitrogen Base	Yeast Nitrogen Base w/o Amino Acids	Yeast Nitrogen w/o Amino Acids and w/o Ammonium Sulfate	Yeast Carbon Base	Vitamin Free Yeast Base
Ferric Chloride	200	200	200	200	200	200	200
Manganese Sulfate	400	400	400	400	400	400	400
Sodium Molybdate	200	200	200	200	200	200	200
Zinc Sulfate	400	400	400	400	400	400	400
Minerals g/l							
KH ₂ PO ₄	1	1	1	1	1	1	1
Magnesium Sulphate.anh	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Sodium Chloride	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Calcium Chloride.anh	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Agar g/l							
Agar	18	-	-	-	-	-	-

SACCHAROMYCES CEREVISIAE SYNTHETIC COMPLETE MEDIA TECHNICAL DATA

	SC Agar / Glucose	SC Broth / Glucose	SC Agar / Galactose	SC Broth / Galactose	SC Agar / Raffinose	SC Broth / Raffinose	SC Agar / Succinate	SC Broth / Succinate	SC Agar / Galactose and Raffinose	SC Broth / Galactose and Raffinose	SC-amino acids supplement
Nitrogen Source g/l											
Ammonium Sulphate	5	5	5	5	5	5	5	5	5	5	-
Carbon Source g/l											
Glucose.H2O	20	20	-	-	-	-	-	-	-	-	-
Galactose	-	-	20	20	-	-	-	-	20	20	-
Raffinose	-	-	-	-	20	20	-	-	10	10	-
Succinate	-	-	-	-	-	-	33	33	-	-	-
Vitamins µg/l											
Biotin	2	2	2	2	2	2	2	2	2	2	-
Ca-Panthotenate	400	400	400	400	400	400	400	400	400	400	-
Folic Acid	2	2	2	2	2	2	2	2	2	2	-
Inositol	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	-
Nicotinic Acid	400	400	400	400	400	400	400	400	400	400	-
p-Aminobenzoic Acid	200	200	200	200	200	200	200	200	200	200	-
Pyridoxine HCl	400	400	400	400	400	400	400	400	400	400	-
Riboflavin	200	200	200	200	200	200	200	200	200	200	-
Thiamine HCl	400	400	400	400	400	400	400	400	400	400	-
Trace Elements µg/l											
Boric Acid	500	500	500	500	500	500	500	500	500	500	-
Copper Sulfate	40	40	40	40	40	40	40	40	40	40	-
Potassium Iodide	100	100	100	100	100	100	100	100	100	100	-
Ferric Chloride	200	200	200	200	200	200	200	200	200	200	-
Manganese Sulfate	400	400	400	400	400	400	400	400	400	400	-
Sodium Molybdate	200	200	200	200	200	200	200	200	200	200	-
Zinc Sulfate	400	400	400	400	400	400	400	400	400	400	-
Minerals g/l											
KH ₂ PO ₄	1	1	1	1	1	1	1	1	1	1	-

	SC Agar / Glucose	SC Broth / Glucose	SC Agar / Galactose	SC Broth / Galactose	SC Agar / Raffinose	SC Broth / Raffinose	SC Agar / Succinate	SC Broth / Succinate	SC Agar / Galactose and Raffinose	SC Broth / Galactose and Raffinose	SC-amino acids supplement
Magnesium Sulphate.anh	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	-
Sodium Chloride	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-
Calcium Chloride. anh	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-
Agar g/l											
Agar	18	-	18	-	18	-	18	-	18	-	-
Supplements mg/l											
Adenine Sulphate	18	18	18	18	18	18	18	18	18	18	18
Alanine	76	76	76	76	76	76	76	76	76	76	76
Arginine	76	76	76	76	76	76	76	76	76	76	76
Asparagine	76	76	76	76	76	76	76	76	76	76	76
Aspartic Acid	76	76	76	76	76	76	76	76	76	76	76
Cysteine	76	76	76	76	76	76	76	76	76	76	76
Glutamine	76	76	76	76	76	76	76	76	76	76	76
Glutamic Acid	76	76	76	76	76	76	76	76	76	76	76
Glycine	76	76	76	76	76	76	76	76	76	76	76
Histidine	76	76	76	76	76	76	76	76	76	76	76
Inositol	76	76	76	76	76	76	76	76	76	76	76
Isoleucine	76	76	76	76	76	76	76	76	76	76	76
Leucine	360	360	360	360	360	360	360	360	360	360	360
Lysine	76	76	76	76	76	76	76	76	76	76	76
Methionine	76	76	76	76	76	76	76	76	76	76	76
PABA	8	8	8	8	8	8	8	8	8	8	8
Phenylalanine	76	76	76	76	76	76	76	76	76	76	76
Proline	76	76	76	76	76	76	76	76	76	76	76
Serine	76	76	76	76	76	76	76	76	76	76	76
Threonine	76	76	76	76	76	76	76	76	76	76	76
Tryptophan	76	76	76	76	76	76	76	76	76	76	76
Tyrosine	76	76	76	76	76	76	76	76	76	76	76
Uracil	76	76	76	76	76	76	76	76	76	76	76
Valine	76	76	76	76	76	76	76	76	76	76	76

SACCHAROMYCES CEREVISIAE SYNTHETIC MINIMAL MEDIA TECHNICAL DATA

	SD Agar / Glucose	SD Broth / Glucose	SD Agar / Glucose w/o Phosphate	SD Broth / Glucose w/o Phosphate	SD Agar / Galactose	SD Broth / Galactose	SD Agar / Raffinose	SD Broth / Raffinose	SD Agar / Succinate	SD Broth / Succinate	SD Agar / Galactose and Raffinose	SD Broth / Galactose and Raffinose
Nitrogen Source g/l												
Ammonium Sulphate	5	5	5	5	5	5	5	5	5	5	5	5
Carbon Source g/l												
Glucose.H2O	20	20	20	20	-	-	-	-	-	-	-	-
Galactose	-	-	-	-	20	20	-	-	-	-	20	20
Raffinose	-	-	-	-	-	-	20	20	-	-	10	10
Succinate	-	-	-	-	-	-	-	-	33	33	-	-
Vitamins µg/l												
Biotin	2	2	2	2	2	2	2	2	2	2	2	2
Ca-Panhotenate	400	400	400	400	400	400	400	400	400	400	400	400
Folic Acid	2	2	2	2	2	2	2	2	2	2	2	2
Inositol	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Nicotinic Acid	400	400	400	400	400	400	400	400	400	400	400	400
p-Aminobenzoic Acid	200	200	200	200	200	200	200	200	200	200	200	200
Pyridoxine HCl	400	400	400	400	400	400	400	400	400	400	400	400
Riboflavin	200	200	200	200	200	200	200	200	200	200	200	200
Thiamine HCl	400	400	400	400	400	400	400	400	400	400	400	400
Trace Elements µg/l												
Boric Acid	500	500	500	500	500	500	500	500	500	500	500	500
Copper Sulfate	40	40	40	40	40	40	40	40	40	40	40	40
Potssium Iodide	100	100	100	100	100	100	100	100	100	100	100	100
Ferric Chloride	200	200	200	200	200	200	200	200	200	200	200	200
Manganese Sulfate	400	400	400	400	400	400	400	400	400	400	400	400
Sodium Molybdate	200	200	200	200	200	200	200	200	200	200	200	200
Zinc Sulfate	400	400	400	400	400	400	400	400	400	400	400	400
Minerals g/l												
KH2PO4	1	1	-	-	1	1	1	1	1	1	1	1

	SD Agar / Glucose	SD Broth / Glucose	SD Agar / Glucose w/o Phosphate	SD Broth / Glucose w/o Phosphate	SD Agar / Galactose	SD Broth / Galactose	SD Agar / Raffinose	SD Broth / Raffinose	SD Agar / Succinate	SD Broth / Succinate	SD Agar / Galactose and Raffinose	SD Broth / Galactose and Raffinose
Magnesium Sulphate.anh	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Sodium Chloride	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Calcium Chloride. anh	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Agar g/l												
Agar	18	-	18	-	18	-	18	-	18	-	18	-

SACCHAROMYCES CEREVISIAE YEAST NITROGEN BASE WITHOUT AMINO ACIDS TECHNICAL DATA

	Yeast Morphology Agar	Yeast Nitrogen Base	Yeast Potassium Nitrate Nitrogen Base	Yeast Nitrogen Base w/o Amino Acids	Yeast Nitrogen w/o Amino Acids and w/o Ammonium Sulfate	Yeast Carbon Base	Vitamin Free Yeast Base
Nitrogen Source g/l							
Ammonium Sulphate	3.5	5	-	5	-	-	5
Asparagine	1.5	-	-	-	-	-	-
Potassium Nitrate	-	-	0.78	-	-	-	-
Caseine Hydrolysate	-	-	-	-	-	-	-
Carbon Source g/l							
Glucose.H2O	10	-	-	-	-	10	10
Galactose	-	-	-	-	-	-	-
Raffinose	-	-	-	-	-	-	-
Amino Acids mg/l							
Histidine.HCl	10	10	1	-	-	1	10
Methionine	20	20	2	-	-	2	20
Tryptophan	20	20	2	-	-	2	20
Vitamins µg/l							
Biotin	2	2	2	2	2	2	-
Ca-Panthenate	400	400	400	400	400	400	-
Folic Acid	2	2	2	2	2	2	-
Inositol	2000	2000	2000	2000	2000	2000	-
Nicotinic Acid	400	400	400	400	400	400	-
p-Aminobenzoic Acid	200	200	200	200	200	200	-
Pyridoxine HCl	400	400	400	400	400	400	-
Riboflavin	200	200	200	200	200	200	-
Thiamine HCl	400	400	400	400	400	400	-
Trace Elements µg/l							
Boric Acid	500	500	500	500	500	500	500
Copper Sulfate	40	40	40	40	40	40	40
Potassium Iodide	100	100	100	100	100	100	100

	Yeast Morphology Agar	Yeast Nitrogen Base	Yeast Potassium Nitrate Nitrogen Base	Yeast Nitrogen Base w/o Amino Acids	Yeast Nitrogen w/o Amino Acids and w/o Ammonium Sulfate	Yeast Carbon Base	Vitamin Free Yeast Base
Ferric Chloride	200	200	200	200	200	200	200
Manganese Sulfate	400	400	400	400	400	400	400
Sodium Molybdate	200	200	200	200	200	200	200
Zinc Sulfate	400	400	400	400	400	400	400
Minerals g/l							
KH ₂ PO ₄	1	1	1	1	1	1	1
Magnesium Sulphate.anh	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Sodium Chloride	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Calcium Chloride.anh	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Agar g/l							
Agar	18	-	-	-	-	-	-

SACCHAROMYCES CEREVISIAE YEAST NITROGEN BASE WITHOUT AMINO ACIDS AND WITHOUT AMMONIUM SULPHATE TECHNICAL DATA

	Yeast Morphology Agar	Yeast Nitrogen Base	Yeast Potassium Nitrate Nitrogen Base	Yeast Nitrogen Base w/o Amino Acids	Yeast Nitrogen w/o Amino Acids and w/o Ammonium Sulfate	Yeast Carbon Base	Vitamin Free Yeast Base
Nitrogen Source g/l							
Ammonium Sulphate	3.5	5	-	5	-	-	5
Asparagine	1.5	-	-	-	-	-	-
Potassium Nitrate	-	-	0.78	-	-	-	-
Caseine Hydrolysate	-	-	-	-	-	-	-
Carbon Source g/l							
Glucose.H2O	10	-	-	-	-	10	10
Galactose	-	-	-	-	-	-	-
Raffinose	-	-	-	-	-	-	-
Amino Acids mg/l							
Histidine.HCl	10	10	1	-	-	1	10
Methionine	20	20	2	-	-	2	20
Tryptophan	20	20	2	-	-	2	20
Vitamins µg/l							
Biotin	2	2	2	2	2	2	-
Ca-Panhotenate	400	400	400	400	400	400	-
Folic Acid	2	2	2	2	2	2	-
Inositol	2000	2000	2000	2000	2000	2000	-
Nicotinic Acid	400	400	400	400	400	400	-
p-Aminobenzoic Acid	200	200	200	200	200	200	-
Pyridoxine HCl	400	400	400	400	400	400	-
Riboflavin	200	200	200	200	200	200	-
Thiamine HCl	400	400	400	400	400	400	-

	Yeast Morphology Agar	Yeast Nitrogen Base	Yeast Potassium Nitrate Nitrogen Base	Yeast Nitrogen Base w/o Amino Acids	Yeast Nitrogen w/o Amino Acids and w/o Ammonium Sulfate	Yeast Carbon Base	Vitamin Free Yeast Base
Trace Elements µg/l							
Boric Acid	500	500	500	500	500	500	500
Copper Sulfate	40	40	40	40	40	40	40
Potassium Iodide	100	100	100	100	100	100	100
Ferric Chloride	200	200	200	200	200	200	200
Manganese Sulfate	400	400	400	400	400	400	400
Sodium Molybdate	200	200	200	200	200	200	200
Zinc Sulfate	400	400	400	400	400	400	400
Minerals g/l							
KH ₂ PO ₄	1	1	1	1	1	1	1
Magnesium Sulphate.anh	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Sodium Chloride	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Calcium Chloride.anh	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Agar g/l							
Agar	18	-	-	-	-	-	-



Tel: 00 44 (0) 1485 609069
Fax: 00 44 (0) 1485 600510
Email: sales@formedium.com

www.formedium.com

Unit 1B Hunstanton
Commercial Park
Hunstanton, Norfolk
PE365JQ
United Kingdom