

Product Information

NeuroBase
 Basal Medium for Prenatal and Fetal Neuronal Cells, w/o L-Glutamine
 Cat. No. NEU-500ML

General Information

NeuroBase is a basal medium developed for the maintenance and maturation of prenatal and fetal brain neuronal cells without the need for an astrocyte nutrient layer. It can be used supplemented with a serum-free supplement like NCS21 or also serum. It does not contain the amino acids glutamate and aspartate, making it suitable for the study of these neurotransmitters.

Product Specifications

Appearance	Clear red orange solution
CO ₂ concentration, optimum	5.0 %
Storage and shelf life	Store at +2°C to +8°C protected from light. Once opened, store at +4°C and use within 6-8 weeks.
Shipping conditions	Ambient

Formulation

Components	Concentration mg/L
Amino Acids:	
Glycine	30.00
L-Alanine	2.00
L-Arginine HCl	84.0
L-Asparagine H ₂ O	0.83
L-Cystine HCl H ₂ O	45.66
L-Histidine HCl H ₂ O	42.00
L-Isoleucine	105.00
L-Leucine	105.00
L-Lysine HCl	146.00
L-Methionine	30.00
L-Phenylalanine	66.00
L-Proline	7.76
L-Serine	42.00
L-Threonine	95.00
L-Tryptophan	16.00
L-Tyrosine 2Na 2H ₂ O	103.79
L-Valine	94.00
Vitamins:	
Choline Chloride	4.00
D-Calcium Pantothenate	4.00
Folic Acid	4.00
Nicotinamide	4.00
Pyridoxal HCl	4.00
Riboflavin	0.40

Components	Concentration mg/L
Thiamine HCl	4.00
Vitamin B ₁₂	0.0068
myo-Inositol	7.20
Inorganic Salts:	
CaCl ₂ 2 H ₂ O	265.00
Fe(NO ₃) ₃ 9 H ₂ O	0.10
MgCl ₂ 6 H ₂ O	165.06
KCl	400.00
NaHCO ₃	2200.00
NaCl	3000.00
NaH ₂ PO ₄ H ₂ O	125.00
ZnSO ₄ 7 H ₂ O	0.194
Other Components:	
D-Glucose	4500.00
HEPES	2600.00
Phenol Red Sodium Salt	8.10
Sodium Pyruvate	25.00

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Instructions for Use

Preparation of complete media

Variant A: Add 2 ml NCS21 Supplement (Cat. No. C21-H; or other commercially available variants) and 0.5 mM L-Glutamine to 100 ml NeuroBase under sterile conditions.

Variant B: Add 1 ml N2 Supplement (100x; Cat. No. N2-K) and 0.5 –2mM L-Glutamine to 100 ml NeuroBase under sterile conditions.

The complete supplemented NeuroBase Medium is stable for up to one week when stored at +2°C to +8°C in the dark.

Note: Include 25 µM (3.7 µg/ml) glutamate prior to initial plating of primary hippocampal neurons.

Culture of neuronal cells

1. Use Poly-D-Lysine coated sterile culture vessels.
2. Plate cells in pre-warmed (+37°C) complete NeuroBase medium (160 cells/mm² or suggested density supplied with the cells).
3. After 4 – 24 hours incubation at +37°C and 5 % CO₂, replace half of the medium with the same volume of fresh complete medium.
4. Change half of the medium every 3 – 4 days.

Precautions and Disclaimer

This product is for research use only.

Help Needed?

If you have any further questions regarding this product, please do not hesitate to contact our cell culture experts by email (techservice@capricorn-scientific.com) or phone (+49 6424 944640).