

Product Information

Glutamine-Free Media — Glasgow's Modified Eagle's Medium

with 800 mg/L glycine, with 2750 mg/L sodium bicarbonate, with 110 mg/L sodium pyruvate,
without ferric nitrate, without L-glutamine

CATALOG NO. 51492C

Description

The GS System™ uses the Glutamine Synthetase (GS) gene as a selectable marker for the expression of recombinant proteins in mammalian cells, especially NS0 and CHO cells. Cell lines transfected with the GS gene are selected on the basis of their ability to grow in glutamine-free medium. The system has significant advantages in speed and efficiency of cell line development resulting in high productivity of antibodies and other recombinant proteins.

A glutamine-free formulation of Glasgow's Modified Eagle's Medium (GMEM) is available for the growth of NS0 and CHO cells containing the GS expression system. Cells cultured in this medium require supplementation with GS Supplement 50X (Catalog No. 58672C), which is a mixture of amino acids and nucleosides, and Fetal Bovine Serum (FBS) that has been dialyzed (Catalog No. 12117C).

Precautions

Use aseptic technique when handling or supplementing this medium. This product is for further manufacturing use. THIS PRODUCT IS NOT INTENDED FOR HUMAN OR THERAPEUTIC USE.

Storage

Store medium protected from light at 2 to 8 C. Do not freeze. Do not use after the expiration date.

Indications of Deterioration

Medium should be clear of particulates and flocculent material. Do not use if medium is cloudy or contains precipitate. Other evidence of deterioration may include color change, pH shift or degradation of physical or performance characteristics.

Preparation Instructions

Supplements, such as antibiotics, can be added to the sterilized solution using aseptic technique. Storage conditions and shelf life of the supplemented product may be affected by the nature of the supplements. Sterile serum should not be refiltered before or after being added to sterile medium because growth promoting capacity may be reduced upon refiltration.

Formulation

Component (all components measured in mg/L)	
INORGANIC SALTS	
Calcium chloride anhydrous	200.000
Magnesium sulfate anhydrous	98.000
Potassium chloride	400.000
Sodium bicarbonate	2750.000
Sodium chloride	6400.000
Sodium phosphate monobasic monohydrate	123.800
VITAMINS	
D-calcium pantothenate	2.000
Choline chloride	2.000
Folic acid	2.000
i-inositol	4.000
Niacinamide	2.000
Pyridoxal HCl	2.000
Riboflavin	0.200
Thiamine HCl	2.000
AMINO ACIDS	
L-arginine HCl	42.120
L-cystine free base	24.020
Glycine	800.000
L-histidine HCl monohydrate	21.000
L-isoleucine	52.460
L-leucine	52.460
L-lysine HCl	73.060
L-methionine	14.920
L-phenylalanine	33.020
L-threonine	47.640
L-tryptophan	8.160
L-tyrosine free base	36.220
L-valine	46.860
OTHER	
Dextrose anhydrous	4500.000
Phenol red sodium salt	17.000
Sodium pyruvate	110.000

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Characteristics

Appearance

Clear red solution

Endotoxin

≤ 1.0 EU/mL

Osmolality (as supplied)

295 - 335 mOsm/kg H₂O

pH (as supplied)

7.0 - 7.4

Sterility

No microbial growth detected

References

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