Grace's Insect Medium
With L-Glutamine and Sodium bicarbonate
1X Liquid Insect Cell Culture Medium

Product Code: IML001A

Product Description:
Grace's Insect medium is a modification of the original formula developed by Wyatt. Grace (1962) improved the medium by introducing ten water soluble vitamins in Wyatt’s formula. Grace successfully established four strains of cells from ovarian tissue of Australian emperor gum moth using this medium. These were the first continuous cell lines developed from insect tissue.

IML001A is Grace's Insect Medium can be used to culture cells derived from a variety of insects especially Lepidopterans and some species of Dipterans. It contains L-Glutamine and sodium bicarbonate. Originally the basal medium was supplemented with plasma from insects, the tissues of which were cultured or plasma from silkworm, Bombyx mori. Presently, the medium is supplemented with 5-20% fetal bovine serum. Users are advised to review the literature for recommendations regarding medium supplementation and physiological growth requirements specific for different cell lines.

Composition:

Ingredients | mg/L
---|---
**INORGANIC SALTS**
Calcium chloride dihydrate | 1320.000
Magnesium chloride anhydrous | 1068.200
Magnesium sulphate anhydrous | 1356.650
Potassium chloride | 2240.000
Sodium bicarbonate | 350.000
Sodium phosphate monobasic monohydrate | 1007.000
**AMINO ACIDS**
DL-Serine | 1100.000
Glycine | 650.000
L-Alanine | 225.000
L-Arginine hydrochloride | 700.000
L-Asparagine monohydrate | 400.000
L-Aspartic acid | 350.000
L-Cystine dihydrochloride | 25.000
L-Glutamic acid | 600.000
L-Glutamine | 600.000
L-Histidine hydrochloride monohydrate | 3376.000
L-Isoleucine | 50.000
L-Leucine | 75.000
L-Lysine hydrochloride | 625.000
L-Methionine | 50.000
L-Phenylalanine | 150.000
L-Proline | 350.000
L-Threonine | 175.000
L-Tryptophan | 100.000
L-Tyrosine disodium salt | 72.000
L-Valine | 100.000
ß-Alanine | 200.000
**VITAMINS**
Choline chloride | 0.200
D-Biotin | 0.010
D-Pantothenic acid (hemicalcium) | 0.020
Folic acid | 0.020
Niacin | 0.020
Pyridoxine hydrochloride | 0.020
Riboflavin | 0.020
Thiamine hydrochloride | 0.020
myo-Inositol | 0.020
p-Amino benzoic acid (PABA) | 0.020
**OTHERS**
Alpha-Ketoglutaric acid | 370.000
D(+)-Glucose | 700.000
D-Fructose | 400.000
Fumaric acid free acid | 55.000
L-Malic acid free acid | 670.000
Succinic acid | 60.000
Sucrose | 26680.000

Material required but not provided:
Fetal bovine serum (RM1112/ RM10432)

Quality Control:
Appearance
Yellow to pale yellow colored clear solution
pH
6.10 -6.30

Osmolality in mOsm/Kg H2O
350.00 -390.00

Sterility
No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

Cultural Response
The growth promotion capacity of the medium is assessed qualitatively by analyzing the cells for the morphology and quantitatively by estimating the cell counts and comparing it with a control medium through minimum three subcultures.

Endotoxin Content
NMT 5EU/ml

Storage and Shelf Life:
Store at 2-8°C away from bright light.
Shelf life is 12 months.
Use before expiry date given on the product label.

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