

### Technical Information

#### William's Medium E

With Sodium bicarbonate Without Phenol red and L-Glutamine

**Product Code: AL1240**

**Application:-** William's Medium E was developed by Williams and Gunn for the isolation and long term maintenance of adult rat liver epithelial cells. The medium is a rich modification of William's medium D and was developed during studies performed to explore the possibilities of culturing adult liver cells on a long-term basis. AL1240 is William's Medium with sodium bicarbonate. It does not contain L-glutamine and phenol red. Users are advised to review the literature for recommendations regarding medium supplementation and physiological growth requirements specific for different cell lines.

#### Composition\*\*

Ingredients	mg/Litre
<b>INORGANIC SALTS</b>	
Calcium chloride dihydrate	285.00
Copper sulphate pentahydrate	0.0001
Ferric nitrate nonahydrate	0.0001
Magnesium sulphate anhydrous	97.670
Manganese chloride tetrahydrate	0.0001
Potassium chloride	400.00
Sodium bicarbonate	2200.0
Sodium chloride	6800.0
Sodium dihydrogen phosphate anhydrous	122.00
Zinc sulphate heptahydrate	0.0002
<b>AMINO ACIDS</b>	
Glycine	50.000
L-Alanine	90.000
L-Arginine hydrochloride	60.460
L-Asparagine monohydrate	20.000
L-Aspartic acid	30.000
L-Cysteine hydrochloride monohydrate	57.986
L-Cystine dihydrochloride	26.070
L-Glutamic Acid	44.500
L-Histidine hydrochloride monohydrate	16.409
L-Isoleucine	50.000
L-Leucine	75.000
L-Lysine hydrochloride	87.460
L-Methionine	15.000
L-Phenylalanine	25.000
L-Proline	30.000
L-Serine	10.000
L-Threonine	40.000
L-Tryptophan	10.000
L-Tyrosine disodium dihydrate	50.650

L-Valine 50.000

### VITAMINS

Ascorbic acid sodium salt 2.270

Calciferol 0.100

Choline chloride 1.500

D-Biotin 0.500

D-Ca-Pantothenate hemicalcium 1.000

Folic acid 1.000

Menadione sodium bisulphite 0.010

Niacinamide 1.000

Pyridoxal hydrochloride 1.000

Retinol Acetate 0.100

Riboflavin 0.100

Thiamine hydrochloride 1.000

Vitamin B12 0.200

Myo Inositol 2.000

### OTHERS

Alpha Tocopherol phosphate disodium salt 0.010

D-Glucose 2000.0

Glutathione reduced 0.050

Methyl linoleate 0.030

Sodium pyruvate 25.000

## Methodology

1. Add 10ml of 200mM L-glutamine (TCL1012) for 1 litre of medium.

## Material Required But Not Provided

L-Glutamine solution 200mM (TC1L012)

## Quality control

### Appearance :

Colourless clear solution

### pH :

7.00-7.60

### Osmolality in mOsm/Kg H<sub>2</sub>O

290.00 -330.00

### 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 .

### Endotoxin Content

NMT 1EU/ml

### Storage and Shelf Life

Store at 2-8°C away from bright light. Shelf life is 18 months. Use before expiry date given on the product label.

### Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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