



## TC-100 Insect Medium

With Sodium bicarbonate  
Without L-Glutamine

**Product Code: IML007**

### Product Description:

TC-100 is a modification done by Dr. Gardiner and Dr. Stockdale of the original formulation of Grace's insect medium. Sucrose, fructose and several Kreb's cycle intermediates were omitted from the original formula. The modification was done to optimize the production of *Autographia californica* NPV virions by cells from the fall armyworm, *Spodoptera frugiperda*. IML007 is TC-100 Insect Medium a fully defined medium and does not require supplementation with insect hemolymph. Instead, tryptose broth and fetal bovine serum provide the necessary growth factors. This medium supports the growth of several lepidopteran cell lines including *Spodoptera frugiperda*. It is specifically used for production of baculoviruses in lepidopteran cell lines. 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
<b>INORGANIC SALTS</b>	
Calcium chloride dihydrate	1319.820
Magnesium chloride anhydrous	1068.200
Magnesium sulphate anhydrous	1357.630
Potassium chloride	2870.000
Sodium bicarbonate	350.000
Sodium phosphate monobasic	876.920
<b>AMINO ACIDS</b>	
Glycine	650.000
L-Alanine	225.000
L-Arginine hydrochloride	700.000
L-Asparagine monohydrate	350.000
L-Aspartic acid	350.000
L-Cystine dihydrochloride	25.000
L-Glutamic acid	600.000
L-Histidine hydrochloride monohydrate	3086.340
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-Serine	550.000
L-Threonine	175.000
L-Tryptophan	100.000
L-Tyrosine disodium salt dihydrate	62.090
L-Valine	100.000
<b>VITAMINS</b>	
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	0.520
myo-Inositol	0.020
p-Amino benzoic acid (PABA)	0.020
<b>OTHERS</b>	
D(+) Glucose	1000.000
Tryptose Broth	2600.000

### Directions:

1. Add 20.55ml of 200mM L-glutamine (TCL012) for 1 litre of medium.

### Material required but not provided:

L-Glutamine solution 200mM (TCL012)  
Fetal Bovine Serum (RM1112/ RM10432)

### Quality Control:

#### Appearance

Yellow to pale yellow coloured clear solution

**pH**

5.90 -6.50

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

330.00 -370.00

**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 18 months.

Use before expiry date given on the product label.

**Disclaimer :**

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