

## Grace's Insect Medium, Supplemented *Cell Culture Medium*

**Catalog No.:** CM101

**Description:** Grace's Insect Medium is a classic insect cell culture medium originally developed by Grace for cells derived from *Antheraea eucalypti*. The supplemented version includes additional nutrients to support a broad range of insect cell lines, especially *Spodoptera frugiperda* (Sf9, Sf21) cells. These cells are widely used in Baculovirus Expression Vector Systems (BEVS) for recombinant protein production and other molecular biology applications. The supplemented formulation enhances cell proliferation and viability, providing a more complete nutritional environment than the base medium.

**Key Features:**

- Supports insect cell growth, particularly lepidopteran cell lines such as Sf9 and Sf21.
- Contains lactalbumin hydrolysate, yeastolate, L-glutamine, and sodium bicarbonate, providing nutrients often missing in basal formulations.
- Optimized for rapid cell proliferation and maintenance of healthy cell morphology.
- Manufactured under strict cGMP standards for reproducible quality.

**Recommended Applications**

- Insect cell culture (Sf9, Sf21, and other lepidopteran cells).
- Baculovirus-mediated recombinant protein expression.
- General cell proliferation, expression studies, and functional research.

**Product Type:** Sterile filtered solution

**Packing Size:** 500 mL

**pH:**  $6.2 \pm 0.2$

**Osmolarity:**  $370 \pm 20$  mOsm/kg

**Storage:** Store at 2-8°C in a dark place.

**FOR RESEARCH USE ONLY, NOT FOR USE IN DIAGNOSTIC AND THERAPEUTIC PROCEDURES**

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**Composition of Grace's Insect Medium, Supplemented**

<b>Inorganic Salts</b>		<b>mg/L</b>	
Calcium Chloride (CaCl <sub>2</sub> ) (anhydrous)		500.00	
Magnesium Chloride (MgCl <sub>2</sub> ) (anhydrous)		1070.00	
Magnesium Sulfate (MgSO <sub>4</sub> ) (anhydrous)		1350.00	
Potassium Chloride (KCl)		2800.00	
Sodium Bicarbonate (NaHCO <sub>3</sub> )		350.00	
Sodium Phosphate monohydrate		1013.00	
<b>Amino Acids</b>			
L-Alanine		225.00	
L-Arginine hydrochloride		700.00	
L-Asparagine-H <sub>2</sub> O		398.00	
L-Aspartic acid		350.00	
L-Cystine 2HCl		28.68	
L-Glutamic Acid		600.00	
L-Glutamine		600.00	
Glycine		650.00	
L-Histidine hydrochloride-H <sub>2</sub> O		3381.00	
L-Isoleucine		50.00	
L-Leucine		75.00	
L-Lysine hydrochloride		625.00	
L-Methionine		50.00	
L-Phenylalanine		150.00	
L-Proline		350.00	
L-Serine		550.00	
L-Threonine		175.00	
L-Tryptophan		100.00	
L-Tyrosine disodium salt dihydrate		62.14	
L-Valine		100.00	
beta-Alanine		200.00	
<b>Vitamins</b>			
Biotin		0.01	
D-Calcium pantothenate		0.02	
Choline chloride		0.20	
Folic Acid		0.02	
i-Inositol		0.02	
Nicotinic acid		0.02	
Para-Aminobenzoic acid		0.02	
Pyridoxine hydrochloride		0.02	
Riboflavin (B <sub>2</sub> )		0.02	
Thiamine hydrochloride (B <sub>1</sub> )		0.02	
<b>Carbohydrates &amp; Organic acids</b>			
D-Glucose (Dextrose)		700.00	
Alpha-Ketoglutaric acid		370.00	
Fumaric acid		55.00	
Malic acid		670.00	
Succinic acid		60.00	
D-Fructose		400.00	
Lactalbumin hydrolysate		3303.00	
Sucrose		26680.00	
<b>Protein &amp; Growth Factors</b>			
Yeastolate		3330.00	

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