



Product Information

Grace's Insect Medium

Grace's medium was originally formulated to support the growth of cells derived from the Australian emperor gum moth, *Antheraea eucalypti*. The medium is a modification of Wyatt's medium to more closely resemble *Antheraea hemolymph*. The cell lines established by Grace using this medium were the first continuous lines developed. The basal medium, when properly supplemented, has been used to culture cells derived from a variety of insects including several species of lepidopterans as well as some dipterans. The medium is primarily used as a basal medium for the growth and maintenance of cell lines derived from lepidopterans.

REFERENCES

1. Grace, T.D.C., Establishment of four strains of cells from insect tissues grown in vitro. *Nature*, 195, 788-789 (1962).
2. Grace, T.D.C., Establishment of a line of cells from the silkworm, *Bombyx mori*. *Nature*, 216, 613 (1967).
3. Grace, T.D.C., Establishment of a line of mosquito (*Aedes aegypti*) cells grown in vitro. *Nature*, 211, 366-367 (1966).

Grace's Insect Medium formulas on next page.

Grace's Insect Medium

	G 9771	G 5649	G 8142
	[power]	[powder]	[1X]
COMPONENT	g/L	g/L	g/L
INORGANIC SALTS			
CaCl ₂ (anhyd)	1.0	1.0	1.0
MgCl (anhyd)	1.068189	1.068189	1.068189
MgSO ₄ (anhyd)	1.357858	1.357858	1.357858
KCl	2.24	2.24	2.24
NaHCO ₃	□	□	0.35
NaH ₂ PO ₄	0.876923	0.876923	0.876923
AMINO ACIDS			
β-Alanine	0.2	0.2	0.2
L-Alanine	0.225	0.225	0.225
L-Arginine•HCl	0.7	0.7	0.7
L-Aspartic Acid	0.35	0.35	0.35
L-Asparagine (anhyd)	0.35	0.35	0.35
L-Cystine•2HCl	0.025	0.025	0.025
L-Glutamic Acid	0.6	0.6	0.6
L-Glutamine	0.6	0.6	0.6
Glycine	0.65	0.65	0.65
L-Histidine	2.5	2.5	2.5
L-Isoleucine	0.05	0.05	0.05
L-Leucine	0.075	□	0.075
L-Lysine•HCl	0.625	0.625	0.625
L-Methionine	0.05	□	0.05
L-Phenylalanine	0.15	0.15	0.15
L-Proline	0.35	0.35	0.35
DL-Serine	1.1	1.1	1.1
L-Threonine	0.175	0.175	0.175
L-Tryptophan	0.1	0.1	0.1
L-Tyrosine•2Na	0.07202	0.07202	0.07202
L-Valine	0.1	0.1	0.1
VITAMINS			
p-Aminobenzoic Acid	0.00002	0.00002	0.00002
D-Biotin	0.00001	0.00001	0.00001
Choline Chloride	0.0002	0.0002	0.0002
Folic Acid	0.00002	0.00002	0.00002
myo-Inositol	0.00002	0.00002	0.00002
Niacin	0.00002	0.00002	0.00002
D-Pantothenic Acid•½Ca	0.00002	0.00002	0.00002
Pyridoxine•HCl	0.00002	0.00002	0.00002
Riboflavin	0.00002	0.00002	0.00002
Thiamine	0.00002	0.00002	0.00002
OTHER			
D(-)Fructose	0.4	0.4	0.4
Fumaric Acid, free acid	0.055	0.055	0.055
D(+)-Glucose	0.7	0.7	0.7
α-Ketoglutaric Acid	0.37	0.37	0.37
L(-)-Malic Acid, free acid	0.67	0.67	0.67
Succinic Acid	0.06	0.06	0.06
Sucrose	26.68	26.68	26.68
ADD			
L-Leucine	□	0.075	□
L-Methionine	□	0.05	□
NaHCO ₃	0.35	0.35	□

Grams of powder required to prepare 1 L	44.5	44.4	N/A