

Product Information

TNM-FH Insect Media

T.D.C. Grace reported the successful culture of insect cells in 1962, using a medium modeled on the chemical composition of insect hemolymph. Modifications of Grace's medium were developed in the late 1960's and 1970's. Many of these modifications were developed by Dr. W.F. Hink for the growth of cells derived from the cabbage looper, *Tricoplusia ni*. This formulation represents the modification known as TNM-FH. The medium when properly supplemented has been found to support the growth of cells derived from a variety of lepidopteran species.

References

1. Grace, T.D.C., Establishment of four strains of cells from insect tissues grown *in vitro*. *Nature*, **195**, 788-789 (1962).
2. Hink, W.F., Established Insect Cell Line from the Cabbage Looper, *Tricoplusia ni*. *Nature*, **226**, 466-467 (1970).
3. Hink, W.F. et al., Effects of Media Constituents on Growth of Insect Cells in Stationary and Suspension Cultures. *In Vitro*, **9**, 371 (1974).

	T1032	T3285	51942C
	[Powder]	[1x]	[1x]
COMPONENT	g/L	g/L	g/L
Inorganic Salts			
CaCl ₂ · 2H ₂ O	1.3246	1.3246	1.3246
MgCl ₂ · 6H ₂ O	2.28	2.28	2.28
MgSO ₄	1.357856	1.357856	1.35767
KCl	2.24	2.24	2.24
NaHCO ₃	—	0.35	0.35
NaH ₂ PO ₄ · H ₂ O	—	—	1.013
NaH ₂ PO ₄	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-Asparagine	0.35	0.35	—
L-Asparagine · H ₂ O	—	—	0.398
L-Aspartic Acid	0.35	0.35	0.35
L-Cystine · 2HCl	0.025	0.025	0.0287
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 · HCl · H ₂ O	2.5	2.5	2.5
L-Isoleucine	0.05	0.05	0.05
L-Leucine	0.075	0.075	0.075
L-Lysine · HCl	0.625	0.625	0.625
L-Methionine	0.05	0.05	0.05
L-Phenylalanine	0.15	0.15	0.15
L-Proline	0.35	0.35	0.35
L-Serine	0.55	0.55	—
DL-Serine	—	—	1.1
L-Threonine	0.175	0.175	0.175
L-Tryptophan	0.1	0.1	0.1
L-Tyrosine · 2Na	0.07202	0.7202	—
L-Tyrosine · 2Na · 2H ₂ O	—	—	0.07263
L-Valine	0.1	0.1	0.1

Vitamins and others			
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
p-Aminobenzoic Acid	0.00002	0.00002	0.00002
Pyridoxine · HCl	0.00002	0.00002	0.00002
Riboflavin	0.00002	0.00002	0.00002
Thiamine · HCl	0.00002	0.00002	0.00002
Dextrose anhydrous	0.7	0.7	0.7
D-(-)-Fructose	0.4	0.4	0.4
Fumaric acid	0.055	0.055	0.055
α-Ketoglutaric acid	0.37	0.37	0.37
Lactalbumin Hydrolysate	3.3333	3.3333	3.3333
L-Malic acid	0.67	0.67	0.67
Succinic acid free acid	0.06	0.06	0.06
D-(+)-Sucrose	26.68	26.68	26.68
Yeast Extract	3.3333	3.3333	3.3333
Add			
NaHCO ₃	0.35	—	—

JG,PD,JF,ALF,MAM 04/14-1