



Product Information

IPL-41 Insect Medium

IPL-41 is part of a series of media originally developed at the USDA Insect Pathology Laboratory by Weiss et al. for the large scale propagation of cells from the fall armyworm, *Spodoptera frugiperda*. The medium is primarily used for the growth and maintenance of cell lines derived from lepidopterans and the propagation of viruses in these cell lines. One of the most significant uses of the medium is the large scale culture of baculovirus infected *Spodoptera* cells. The expression of recombinant proteins is undertaken from *Spodoptera* cells utilizing the baculovirus expression system (BEVS). Attempts have also been made to obtain the expression of foreign genes in cells cultured in IPL-41 without serum supplementation.

REFERENCE

1. Weiss, S.A., G.C. Smith, S.S. Kalter and J.L. Vaughn. (1981). Improved Method for the Production of Insect Cell Cultures in Large Volumes. *In Vitro*. 17, 495-502.

<u>COMPONENT</u>	I 7760		<u>COMPONENT</u>	I 7760	
	I 0638	[1X]		I 0638	[1X]
	g/L	g/L		g/L	g/L
INORGANIC SALTS			VITAMINS		
CaCl ₂ •2H ₂ O (anhyd)	—	0.5	p-Aminobenzoic Acid	0.00032	0.00032
CoCl ₂ •6H ₂ O	0.00005	0.00005	D-Biotin	0.00016	0.00016
CuCl ₂ (anhyd)	0.000158	0.000158	Choline Chloride	0.02	0.02
FeSO ₄ •7H ₂ O	0.00055	0.00055	Folic Acid	0.00008	0.00008
MgSO ₄ (anhyd)	0.918264	0.918264	myo-Inositol	0.0004	0.0004
MgCl ₂ •4H ₂ O	0.00002	0.00002	Niacin	0.00016	0.00016
(NH ₄) ₆ Mo ₇ O ₂₅ •4H ₂ O	0.00004	0.00004	D-Pantothenic Acid •½Ca	0.000008	0.000008
KCl	1.2	1.2	Pyridoxine•HCl	0.0004	0.0004
NaHCO ₃	—	0.35	Riboflavin	0.00008	0.00008
NaH ₂ PO ₄	1.008696	1.008696	Thiamine•HCl	0.00008	0.00008
ZnCl ₂	0.00004	0.00004	Vitamin B-12	0.00024	0.00024
AMINO ACIDS			OTHER		
β-Alanine	0.3	0.3	Fumaric Acid, free acid	0.0044	0.0044
L-Arginine•HCl	0.8	0.8	D(+)-Glucose	2.5	2.5
L-Aspartic Acid	1.3	1.3	α-Ketoglutaric Acid	0.0296	0.0296
L-Asparagine (anhydrous)	1.3	1.3	L(-)-Malic Acid, free acid	0.0536	0.0536
L-Cystine•2HCl	0.130337	0.130337	Maltose	1.0	1.0
L-Glutamic Acid	1.5	1.5	Succinic Acid	0.0048	0.0048
L-Glutamine	1.0	1.0	Sucrose	1.65	1.65
Glycine	0.2	0.2	ADD		
L-Histidine	0.2	0.2	CaCl ₂ •2H ₂ O (anhyd)	0.5	—
Hydroxy-L-Proline	0.8	0.8	NaHCO ₃	0.35	—
L-Isoleucine	0.75	0.75	Grams of powder required		
L-Leucine	0.25	0.25	to prepare 1 L		
L-Lysine•HCl	0.7	0.7		21.7	N/A
L-Methionine	1.0	1.0			
L-Phenylalanine	1.0	1.0			
L-Proline	0.5	0.5			
DL-Serine	0.4	0.4			
L-Threonine	0.2	0.2			
L-Tryptophan	0.1	0.1			
L-Tyrosine•2Na	0.360375	0.360375			
L-Valine	0.5	0.5			

