



PurMa Biologics, LLC.

## William's E Medium

Cat #: P3S010880

Standard Formulation

Amino Acids	g/L	Vitamins	g/L
Glycine	0.05	Ascorbic Acid	0.002
L-Alanine	0.09	Biotin	0.0005
L-Arginine	0.05	Choline chloride	0.0015
L-Asparagine-H <sub>2</sub> O	0.02	D-Calcium pantothenate	0.001
L-Aspartic acid	0.03	Ergocalciferol	0.01
L-Glutamine	0.292	Folic Acid	0.001
L-Cysteine	0.04	Menadione sodium bisulfate	0.1X 10 <sup>-3</sup>
L-Cystine 2HCl	0.0261	Niacinamide	0.001
L-Glutamic Acid	0.05	Pyridoxal hydrochloride	0.001
L-Histidine	0.015	Riboflavin	0.0001
L-Isoleucine	0.05	Thiamine hydrochloride	0.001
L-Leucine	0.075	Vitamin A (acetate)	0.0001
L-Lysine hydrochloride	0.087	Vitamin B12	0.0002
L-Methionine	0.015	α-Tocopherol phos. Na salt	0.1X 10 <sup>-3</sup>
L-Phenylalanine	0.025	i-Inositol	0.002
L-Proline	0.03	Other Elements	g/L
L-Serine	0.01	Glucose	2.00
L-Threonine	0.04	Glutathione (reduced)	0.5X 10 <sup>-4</sup>
L-Tryptophan	0.01	Methyl linoleate	0.3X 10 <sup>-3</sup>
L-Tyrosine disodium salt dihydrate	0.051	Phenol Red	0.01
L-Valine	0.05	Sodium Pyruvate	0.055
Inorganic Salts			
CuSO <sub>4</sub> ·5H <sub>2</sub> O	0.10X 10 <sup>-8</sup>		
Fe (NO <sub>3</sub> ) <sub>9</sub> ·9H <sub>2</sub> O	0.10X 10 <sup>-8</sup>		
MgSO <sub>4</sub> (anhydrous)	0.098		
MnCl <sub>2</sub> ·4H <sub>2</sub> O	0.10X 10 <sup>-8</sup>		
KCl	0.4		
NaHCO <sub>3</sub>	2.2		
NaCl	6.8		
NaH <sub>2</sub> PO <sub>4</sub> (anhydrous)	0.14		
ZnSO <sub>4</sub> ·7H <sub>2</sub> O	0.2X 10 <sup>-8</sup>		