



BGJb Medium Fitton-Jackson Modification

Product Information

Medium BGJ was originally developed by Biggers, Gwatkin and Judah in the early 1960's at the Wistar Institute. Subsequent studies resulted in a modification designated BGJb which has been used for supporting cultures of cartilaginous embryonic bone. An additional modification, developed by Sylvia Fitton-Jackson at Strangeways Laboratory in England, is further enriched over the original formula. The additional amino acids and vitamins, and the increased buffering capacity conferred by the phosphates in the Fitton-Jackson modification, create conditions that permit calcification as well as growth of cartilaginous embryonic bone.

COMPONENT	B 6644 g/L	COMPONENT	B 6644 g/L
INORGANIC SALTS		VITAMINS	
MgSO ₄	0.09768	Ascorbic Acid	0.05
KCl	0.4	D-Biotin	0.0002
Na•Acetate	0.05	Choline Bitartrate	0.0907
NaCl	6.8	Folic Acid	0.0002
Na ₂ HPO ₄	0.112	myo-Inositol	0.0002
NaH ₂ PO ₄	0.02434	Nicotinic Acid	0.02
AMINO ACIDS		PABA	0.002
L-Alanine	0.25	D-Pantothenic Acid•½Ca	0.0002
L-Arginine	0.175	Pyridoxal-5-Phosphate	0.0002
L-Aspartic Acid	0.15	Riboflavin	0.0002
L-Cysteine•HCl•H ₂ O	0.1003	Thiamine•HCl	0.004
L-Glutamine	0.2	α-Tocopherol Phosphate•2Na	0.001
Glycine	0.8	Vitamin B-12	0.00004
L-Histidine	0.15	OTHER	
L-Isoleucine	0.03	Lactic Acid•½Ca	0.555
L-Leucine	0.05	Glucose	10.0
L-Lysine•HCl	0.24	Phenol Red•Na	0.02
L-Methionine	0.05	ADD	
L-Phenylalanine	0.05	NaHCO ₃	3.5
L-Proline	0.4		
L-Serine	0.2		
L-Threonine	0.075		
L-Tryptophan	0.04		
L-Tyrosine•2Na•2H ₂ O	0.05766		
DL-Valine	0.065		
		Grams of powder to prepare 1 L	21.3
		REFERENCE	
		1. Biggers, J.D., Gwatkin, R.B.L., and Hetner, S., (1961). Growth of Embryonic Avian and Mammalian Tibiae on a Relatively Simple Chemically Defined Medium. Exp. Cell Res., 25:1, 41-58.	