
	Document ID:	TDS-MCP-030-50L	Version:	001
	Date of Issue:	10-MAY-2024	Approved by:	Dr. Iman Kamranfar
	Review Date:	10-JAN-2025	Signature:	
	Title:	TECHNICAL DATASHEET		

Ham's F12 Medium



Filtration/ Treatment	Without L-Glutamine
Product Code	MCP-030-50L
Shelf Life	4 years from DOM
Storage Temperature	+2 to +8°C
Shipping Temperature	ambient

QC Specifications

Physical and Chemical Analysis	Method	Specifications	Units
Appearance	Visual	Off-white to pink/orange powder	n/a
Solubility	Internally validated	10.46 in ≤ 30 minutes	g/L
Moisture Content	Loss-on drying	≤ 2.0 %	n/a
Particle Size (100 mesh)	Internally validated	≥ 90%	n/a
pH without NaHCO ₃	Electronic pH Meter	Record	n/a
pH with NaHCO ₃	Electronic pH Meter	Record	n/a
Osmolality without NaHCO ₃	Osmometer	Record	mOsm/kg
Osmolality with NaHCO ₃	Osmometer	Record	mOsm/kg
Endotoxin	LAL Kinetic	≤ 1.0	EU/ml
Mycoplasma	qPCR	Not detected	n/a
Cell culture			
Cell growth promotion	Passage test	3 passages	n/a
Viability	Trypan Blue Exclusion	≥75%	n/a

Formulation

Amino Acids	CAS number	Concentration (mg/L)
Glycine	56-40-6	7.50
L-Alanine	56-41-7	8.90
L-Arginine, Hydrochloride	1119-34-2	211.00
L-Asparagine, Monohydrate	5794-13-8	15.00
L-Aspartic Acid	56-84-8	13.00
L-Cysteine, Hydrochloride, Monohydrate	7048-04-6	35.00
L-Histidine, Hydrochloride, Monohydrate	5934-29-2	21.00
L-Isoleucine	73-32-5	4.00
L-Leucine	61-90-5	13.00
L-Lysine, Hydrochloride	657-27-2	36.50
L-Methionine	63-68-3	4.50
L-Phenylalanine	63-91-2	5.00
L-Proline	147-85-3	34.50
L-Serine	56-45-1	10.50
L-Threonine	72-19-5	12.00
L-Tryptophan	73-22-3	2.00
L-Tyrosine, Disodium, Dihydrate	122666-87-9	7.80
L-Valine	72-18-4	11.70
Vitamins		
Biotin	58-85-5	0.01
Choline Chloride	67-48-1	14.00
D-Calcium Pantothenate	137-08-6	0.50
Folic Acid	59-30-3	1.30
Myo-Inositol	87-89-8	18.00
Niacinamide	98-92-0	0.04
Pyridoxine, Hydrochloride	58-56-0	0.06
Riboflavin	83-88-5	0.04
Thiamine, Hydrochloride	67-03-8	0.30

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Other Components		
D-Glucose, Anhydrous	50-99-7	1802.00
Hypoxanthine, Sodium	45738-97-4	4.70
Linoleic Acid	60-33-3	0.08
Lipoic Acid (DL-Thiolic Acid)	1077-28-7	0.21
Phenol Red, Sodium Salt	34487-61-1	1.20
Putrescine, Dihydrochloride	333-93-7	0.16
Pyruvic Acid, Sodium Salt	113-24-6	110.00
Thymidine	50-89-5	0.70
Inorganic Salts		
Calcium Chloride, Anhydrous	10043-52-4	33.20
Cupric Sulfate, Pentahydrate	7758-99-8	0.003
Ferrous Sulfate, Heptahydrate	7782-63-0	0.83
Magnesium Chloride, Anhydrous	7786-30-3	57.22
Potassium Chloride	7447-40-7	223.60
Sodium Chloride	7647-14-5	7599.00
Sodium Phosphate Dibasic, Anhydrous	7558-79-4	142.00
Zinc Sulfate, Heptahydrate	7446-20-0	0.86

Note: Mix 10.46 g powder in one liter Sterile distilled water. Sodium Bicarbonate is not included in the powdered media (add 1176.00 mg/L). - L -Glutamine is not in the powdered medium (add 146.00 mg/L).

Product Use: This product is intended for laboratory use only.