

## Product Information

Ham's F-12, with L-Glutamine  
Cat. No. HAM-12-A (500 ml)

### Product Specifications

Appearance	Clear red orange solution
CO <sub>2</sub> concentration, optimum	2.5%
Storage and shelf life	Store at +2°C to +8°C protected from light. Once opened, store at 4° C and use within 6-8 weeks.
Shipping conditions	Ambient

### Formulation

Components	Concentration mg/L
<b>Amino Acids:</b>	
L-Alanine	9.00
L-Arginine HCl	211.00
L-Asparagine H <sub>2</sub> O	15.01
L-Aspartic Acid	13.30
L-Cysteine HCl H <sub>2</sub> O	35.00
L-Glutamine	146.00
Glycine	7.51
L-Glutamic Acid	14.70
L-Histidine HCl H <sub>2</sub> O	20.96
L-Isoleucine	3.94
L-Leucine	13.10
L-Lysine HCl	36.50
L-Methionine	4.48
L-Phenylalanine	4.96
L-Proline	34.50
L-Serine	10.50
L-Threonine	11.90
L-Tryptophan	2.04
L-Tyrosine 2 Na 2 H <sub>2</sub> O	7.78
L-Valine	11.70
<b>Vitamins:</b>	
D-Biotin	0.0073
Choline chloride	13.96
D-Calcium Pantothenate	0.48
Folic Acid	1.32
myo-Inositol	18.00
Nicotinamide	0.037

Components	Concentration mg/L
Pyridoxine HCl	0.062
Riboflavin	0.038
Thiamine HCl	0.34
Vitamin B12	1.36
<b>Inorganic Salts:</b>	
CaCl <sub>2</sub> 2 H <sub>2</sub> O	44.10
CuSO <sub>4</sub> 5 H <sub>2</sub> O	0.0025
FeSO <sub>4</sub> 7 H <sub>2</sub> O	0.834
MgCl <sub>2</sub> 6 H <sub>2</sub> O	123.00
KCl	224.00
NaHCO <sub>3</sub>	1176.00
NaCl	7599.00
Na <sub>2</sub> HPO <sub>4</sub> (anhydrous)	142.04
ZnSO <sub>4</sub> 7 H <sub>2</sub> O	0.863
<b>Other Components:</b>	
D-Glucose	1802.00
Hypoxanthine	4.08
Linoleic Acid	0.084
Lipoic Acid	0.21
Phenol Red Sodium Salt	1.3
Putrescine 2 HCl	0.151
Sodium Pyruvate	110.00
Thymidine	0.70

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## Precautions and Disclaimer

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This product is for research use only.

## Help Needed?

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If you have any further questions regarding this product, please do not hesitate to contact our cell culture experts by email ([techservice@capricorn-scientific.com](mailto:techservice@capricorn-scientific.com)) or phone (+49 6424 944640).