

Ham's F-10 and F12 Medium Formulation

Catalog no.	318-010 1X, Liquid Ham's F-12	318-011 1X, Liquid Ham's F-12	318-015 1X, Liquid Ham's F-12	318-050 1X, Liquid Ham's F-10	318-051 1X, Liquid Ham's F-10
Inorganic Salts	mg/L	mg/L	mg/L	mg/L	mg/L
CaCl ₂ (anhydrous)	33.30	33.30	33.30	33.30	33.30
CuSO ₄ (anhydrous)	0.0016	0.0016	0.0016	0.0016	0.0016
FeSO ₄ ·7H ₂ O	0.834	0.834	0.834	0.834	0.834
KCl	223.60	223.60	223.60	285.00	285.00
KH ₂ PO ₄	----	----	----	83.00	83.00
MgSO ₄ (anhydrous)	72.20	72.20	72.20	74.60	74.60
NaCl	7600.00	7600.00	7600.00	7400.00	7400.00
Na ₂ HPO ₄ (anhydrous)	142.00	142.00	142.00	153.70	153.70
NaHCO ₃	1176.0	1176.0	1176.0	1200.00	1200.00
ZnSO ₄ ·7H ₂ O	0.863	0.863	0.863	0.0288	0.0288
Amino Acids					
L-Alanine	8.90	8.90	8.90	9.00	9.00
L-Arginine·HCl	211.00	211.00	211.00	211.00	211.00
L-Asparagine·H ₂ O	15.00	15.00	15.00	15.00	15.00
L-Aspartic acid	13.30	13.30	13.30	13.00	13.00
L-Cysteine·HCl·H ₂ O	35.12	35.12	35.12	35.10	35.10
L-Glutamic acid	14.70	14.70	14.70	14.70	14.70
L-Glutamine	146.20	146.20	146.20	146.20	146.20
Glycine	7.50	7.50	7.50	7.50	7.50
L-Histidine·HCl·H ₂ O	20.96	20.96	20.96	23.00	23.00
L-Isoleucine	3.94	3.94	3.94	2.60	2.60
L-Leucine	13.10	13.10	13.10	13.00	13.00
L-Lysine·HCl	36.50	36.50	36.50	29.00	29.00
L-Methionine	4.48	4.48	4.48	4.48	4.48
L-Phenylalanine	4.96	4.96	4.96	5.00	5.00
L-Proline	34.50	34.50	34.50	11.50	11.50
L-Serine	10.50	10.50	10.50	10.50	10.50
L-Threonine	11.90	11.90	11.90	3.57	3.57
L-Tryptophan	2.04	2.04	2.04	0.60	0.60
L-Tyrosine·2Na·2H ₂ O	7.84	7.84	7.84	2.61	2.61
L-Valine	11.70	11.70	11.70	3.50	3.50
Vitamins					
Biotin	0.0073	0.0073	0.0073	0.024	0.024
D-Calcium pantothenate	0.48	0.48	0.48	0.715	0.715
Choline chloride	13.96	13.96	13.96	0.698	0.698
Folic acid	1.30	1.30	1.30	1.32	1.32
i-Inositol	18.02	18.02	18.02	0.541	0.541
Nicotinamide	0.037	0.037	0.037	0.615	0.615
Pyridoxine·HCl	0.062	0.062	0.062	0.206	0.206
Riboflavin	0.038	0.038	0.038	0.376	0.376
Thiamine·HCl	0.34	0.34	0.34	1.00	1.00
Vitamin B ₁₂	1.36	1.36	1.36	1.36	1.36

To order: (888)-947-3681 Fax: (450) 446-7038

Visit us: www.wisentbioproducts.com

info@wisent.ca

Ham's F-10 and F-12 Medium Formulation (contd.)

Catalog no.	318-010 1X, Liquid Ham's F-12	318-011 1X, Liquid Ham's F-12	318-015 1X, Liquid Ham's F-12	318-050 1X, Liquid Ham's F-10	318-051 1X, Liquid Ham's F-10
Other	mg/L	mg/L	mg/L	mg/L	mg/L
D-Glucose	1802.00	1802.00	1802.00	1100.00	1100.00
HEPES	----	5958.00	----	-----	5958.00
Hypoxanthine, Na	4.77	4.77	4.77	4.77	4.77
Lipoic acid	0.21	0.21	0.21	0.20	0.20
Methyl lineoleate	0.088	0.088	0.088	----	----
Phenol red, Na	1.20	1.20	----	1.20	1.20
Putrescine·2HCl	0.16	0.16	0.16	----	----
Sodium pyruvate	110.00	110.00	110.00	110.00	110.00
Thymidine	0.73	0.73	0.73	0.73	0.73
Specifications					
pH (after buffer)	7.2 ± 0.2	7.2 ± 0.2	7.2 ± 0.2	7.2 ± 0.2	7.2 ± 0.2
Osmolality (mOsm/kg)	290 ± 30	INFO	290 ± 30	290 ± 30	INFO

To order: (888)-947-3681 Fax: (450) 446-7038

Visit us: www.wisentbioproducts.com

info@wisent.ca

Ham's F-10 and F-12 Medium Formulation

Catalog no.	218-010 Powder Ham's F-12	218-050 Powder Ham's F-10
Inorganic Salts	mg/L	mg/L
CaCl ₂ (anhydrous)	33.30	33.30
CuSO ₄ (anhydrous)	0.0016	0.0016
FeSO ₄ ·7H ₂ O	0.834	0.834
KCl	223.60	285.00
KH ₂ PO ₄		83.00
MgSO ₄ (anhydrous)	72.20	74.60
NaCl	7600.00	7400.00
Na ₂ HPO ₄ (anhydrous)	142.00	153.70
NaHCO ₃	----	----
ZnSO ₄ ·7H ₂ O	0.863	0.0288
Amino Acids		
L-Alanine	8.90	9.00
L-Arginine·HCl	211.00	211.00
L-Asparagine·H ₂ O	15.00	15.00
L-Aspartic acid	13.30	13.00
L-Cysteine·HCl·H ₂ O	35.12	35.10
L-Glutamic acid	14.70	14.70
L-Glutamine	146.20	146.20
Glycine	7.50	7.50
L-Histidine·HCl·H ₂ O	20.96	23.00
L-Isoleucine	3.94	2.60
L-Leucine	13.10	13.00
L-Lysine·HCl	36.50	29.00
L-Methionine	4.48	4.48
L-Phenylalanine	4.96	5.00
L-Proline	34.50	11.50
L-Serine	10.50	10.50
L-Threonine	11.90	3.57
L-Tryptophan	2.04	0.60
L-Tyrosine·2Na·2H ₂ O	7.84	2.61
L-Valine	11.70	3.50
Vitamins		
Biotin	0.0073	0.024
D-Calcium pantothenate	0.48	0.715
Choline chloride	13.96	0.698
Folic acid	1.30	1.32
i-Inositol	18.02	0.541
Nicotinamide	0.037	0.615
Pyridoxine·HCl	0.062	0.206
Riboflavin	0.038	0.376
Thiamine·HCl	0.34	1.00
Vitamin B ₁₂	1.36	1.36

To order: (888)-947-3681 Fax: (450) 446-7038

Visit us: www.wisentbioproducts.com

info@wisent.ca

Ham's F-10 and F-12 Medium Formulation (contd.)

Catalog no.	218-010 Powder Ham's F-12	218-050 Powder Ham's F-10
Other	mg/L	mg/L
D-Glucose	1802.00	1100.00
HEPES		-----
Hypoxanthine, Na	4.77	4.77
Lipoic acid	0.21	0.20
Methyl lineoleate	0.088	----
Phenol red, Na	1.20	1.20
Putrescine·2HCl	0.16	----
Sodium pyruvate	110.00	110.00
Thymidine	0.73	0.73
Specifications		
pH (after buffer)	7.5 ± 0.5	7.5 ± 0.5
Osmolality (mOsm/kg)	290 ± 30	290 ± 30
Grams of powder required to prepare 1L (1X Solution)	10.64	9.82

To order: (888)-947-3681 Fax: (450) 446-7038

Visit us: www.wisentbioproducts.com

info@wisent.ca