

Ham's F-12		Ham's F-12K	D-MEM/Ham's F-12						IDM
Code No.	087-08335	080-08565	048-29785	046-32275	042-30555	045-30665	049-32265	042-30795	098-06465
L-Glutamine	●	●	●	-	●	●	●	-	●
Phenol Red	●	●	●	●	●	-	-	●	●
Sodium Pyruvate	●	●	●	●	●	●	●	●	●
HEPES	-	-	-	-	●	-	●	●	●
Components	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Inorganic components:									
CaCl ₂ (anhyd.)	33.2200	102.0000	116.6000	116.6000	116.6000	116.6000	116.6000	-	165.00
CaCl ₂ 2H ₂ O	-	-	-	-	-	-	-	154.5000	-
KCl	223.6000	285.0000	311.8000	311.8000	311.8000	311.8000	311.8000	311.8000	330.00
KNO ₃	-	-	-	-	-	-	-	-	0.076
MgCl ₂ (anhyd.)	57.2200	49.5000	28.6400	28.6400	28.6400	28.6400	28.6400	-	-
MgCl ₂ 6H ₂ O	-	-	-	-	-	-	-	61.2000	-
MgSO ₄ (anhyd.)	-	192.0000	48.8400	48.8400	48.8400	48.8400	48.8400	48.8400	97.67
NaCl	7,599.0000	7,530.0000	6,995.5000	6,995.5000	6,995.5000	6,995.5000	6,995.5000	6,996.0000	4,500.00
NaHCO ₃	1,176.0000	2,500.0000	2,438.0000	2,438.0000	1,200.0000	2,438.0000	1,200.0000	1,200.0000	3,024.00
Na ₂ HPO ₄ (anhyd.)	142.0000	115.5000	71.0200	71.0200	71.0200	71.0200	71.0200	71.0200	-
NaH ₂ PO ₄ (anhyd.)	-	-	54.3400	54.3400	54.3400	54.3400	54.3400	54.3000	108.70
KH ₂ PO ₄	-	58.5200	-	-	-	-	-	-	-
Trace elements:									
CuSO ₄ 5H ₂ O	0.0025	0.0030	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	-
Fe(NO ₃) ₃ 9H ₂ O	-	-	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	-
FeSO ₄ 7H ₂ O	0.8300	0.8300	0.4170	0.4200	0.4170	0.4170	0.4170	0.4170	-
ZnSO ₄ 7H ₂ O	0.8600	0.1440	0.4320	0.4300	0.4320	0.4320	0.4320	0.4320	-
Na ₂ SeO ₃	-	-	-	-	-	-	-	-	0.0173
Amino acids:									
L-Alanine	8.9000	18.0000	4.4500	4.4500	4.4500	4.4500	4.4500	4.5000	25.00
L-Alanyl-L-Glutamine	-	-	-	542.0000	-	-	-	-	-
L-Arginine	-	-	-	-	-	-	-	-	84.00
L-Arginine HCl	211.0000	422.0000	147.5000	147.5000	147.5000	147.5000	147.5000	147.5000	-
L-Asparagine H ₂ O	15.0000	30.0000	7.5000	7.5000	7.5000	7.5000	7.5000	7.5000	28.41
L-Aspartic Acid	13.0000	26.6000	6.6500	6.6500	6.6500	6.6500	6.6500	6.6500	30.00
L-Cystine	-	-	24.0050	24.0050	24.0050	24.0050	24.0050	24.0050	-
L-Cysteine HCl H ₂ O	35.0000	70.0000	17.5600	17.5600	17.5600	17.5600	17.5600	17.5600	-
L-Cystine 2HCl	-	-	-	-	-	-	-	-	91.40
L-Glutamic Acid	14.7000	29.4000	7.3500	7.3500	7.3500	7.3500	7.3500	7.3500	75.00
L-Glutamine	146.0000	292.0000	365.0000	-	365.0000	365.0000	365.0000	-	584.00
Glycine	7.5000	15.0000	18.7500	18.7500	18.7500	18.7500	18.7500	18.7500	30.00
L-Histidine HCl H ₂ O	21.0000	42.0000	31.4800	31.4800	31.4800	31.4800	31.4800	31.4800	42.00
L-Isoleucine	4.0000	7.8800	54.4700	54.4700	54.4700	54.4700	54.4700	54.4700	105.00
L-Leucine	13.0000	26.2000	59.0500	59.0500	59.0500	59.0500	59.0500	59.0500	105.00
L-Lysine HCl	36.5000	73.0000	91.2500	91.2500	91.2500	91.2500	91.2500	91.2500	146.00
L-Methionine	4.5000	9.9600	17.2400	17.2400	17.2400	17.2400	17.2400	17.2400	30.00
L-Phenylalanine	5.0000	9.9200	35.4800	35.4800	35.4800	35.4800	35.4800	35.4800	66.00
L-Proline	34.5000	69.0000	17.2500	17.2500	17.2500	17.2500	17.2500	17.2500	40.00
L-Serine	10.5000	21.0000	26.2500	26.2500	26.2500	26.2500	26.2500	26.2500	42.00
L-Threonine	12.0000	23.8000	53.4500	53.4500	53.4500	53.4500	53.4500	53.4500	95.00
L-Tryptophan	2.0000	4.1000	9.0200	9.0200	9.0200	9.0200	9.0200	9.0200	16.00
L-Tyrosine	5.3700	9.3650	38.6900	38.6900	38.6900	38.6900	38.6900	38.6900	83.71
L-Valine	11.7000	23.0000	52.8500	52.8500	52.8500	52.8500	52.8500	52.8500	94.00
Vitamins:									
D-Biotin	0.0073	0.0700	0.0035	0.0035	0.0035	0.0035	0.0035	0.0035	0.013
D-1/2Ca Pantothenate	0.5000	0.4800	2.2400	2.2400	2.2400	2.2400	2.2400	2.2400	4.00
Choline Chloride	14.0000	14.0000	8.9800	8.9800	8.9800	8.9800	8.9800	8.9800	4.00
Folic Acid	1.3000	1.3000	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	4.00
i-Inositol	18.0000	18.0000	12.6000	12.6000	12.6000	12.6000	12.6000	12.6000	7.20
Niacinamide	0.0400	0.0370	2.0200	2.0200	2.0200	2.0200	2.0200	2.0200	4.00
Pyridoxal HCl	-	-	-	-	-	-	-	-	4.00
Pyridoxine HCl	0.0600	0.0600	2.0310	2.0310	2.0310	2.0310	2.0310	2.0310	-
Riboflavin	0.0400	0.0400	0.2190	0.2190	0.2190	0.2190	0.2190	0.2190	0.40
Thiamine HCl	0.3000	0.3000	2.1700	2.1700	2.1700	2.1700	2.1700	2.1700	4.00
Vitamin B ₁₂	1.4000	1.4000	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.013
Other components:									
D-Glucose	1,802.0000	1,260.0000	3,151.0000	3,151.0000	3,151.0000	3,151.0000	3,151.0000	3,150.0000	4,500.00
Phenol Red	1.2000	3.0000	8.1000	8.1000	8.1000	-	-	-	15.00
Phenol Red Na	-	-	-	-	-	-	-	8.6300	-
Sodium Pyruvate	110.0000	220.0000	55.0000	55.0000	55.0000	55.0000	55.0000	55.0000	110.00
Hypoxanthine	4.0810	4.0800	2.0445	2.0445	2.0445	2.0445	2.0445	2.0445	-
Linoleic Acid	0.0800	-	0.0420	0.0420	0.0420	0.0420	0.0420	0.0420	-
Lipoic Acid	0.2100	0.2100	0.1050	0.1050	0.1050	0.1050	0.1050	0.1050	-
Putrescine 2HCl	0.1610	0.3200	0.0810	0.0810	0.0810	0.0810	0.0810	0.0810	-
Thymidine	0.7000	0.7300	0.3650	0.3650	0.3650	0.3650	0.3650	0.3650	-
HEPES	-	-	-	-	3,574.5000	-	3,574.5000	3,574.5000	5,958.00