ProductInformation

Nutrient Mixture F12 Ham Kaighn's Modification (F12K)

F12K is a modification of Ham's F12 and Coon's F12 with increased concentrations of amino acids and pyruvate, as well as modified salts (Konigsbergs). This medium is designed to support the growth of differentiated rat and chicken cells, and primary human liver cells.

COMPONENT	N 3520 g/L
INORGANIC SALTS	
$CaCl_2 \cdot 2H_2O$	0.13524
$CuSO_4 \cdot 5H_2O$	0.0000025
$FeSO_4 \cdot 7H_2O$	0.000834
$MgCl \cdot 6H_2O$	0.105716
$MgSO_4$	0.19264
KCl	0.28329
KH_2PO_4	0.058523
Na_2HPO_4	0.11502
NaCl	7.5972
$ZnSO_4 \cdot 7H_2O$	0.00014375
AMINO ACIDS	
L-Arginine	0.4214 L
L-Alanine	0.017818
L-Asparagine•H_2O	0.03002
L-Aspartic Acid	0.02662
L-Cysteine•HCl•H_2O	0.07024
L-Glutamic Acid	0.02942
L-Glutamine	0.2922
Glycine	0.015014
L-Histidine•HCl•H_2O	0.04192
L-Isoleucine	0.007872
L-Lysine•HCl	0.07304
L-Leucine	0.02624
L-Methionine	0.008952
L-Proline	0.06906
L-Phenylalanine	0.009912
L-Serine	0.02102
L-Tryptophan	0.004084
L-Tyrosine	0.010872
L-Threonine	0.02382
L-Valine	0.02342

COMPONENT	N 3520 g/L
VITAMINS	
D-Biotin	0.00007329
Choline Chloride	0.01396
Folic Acid	0.0013242
Hypoxanthine	0.004083
myo-Inositol	0.01802
Niacinamide	0.00003663
D-Pantothenic Acid•½Ca	0.000477
Putrescine•2HCl	0.0003222
Pyridoxine•HCl	0.00006168
Riboflavin	0.00003764
Thiamine•HCl	0.0003373
Thymidine	0.0007266
Vitamin B12	0.0013554
OTHER	
D-Glucose	1.26
Pyruvic Acid•Na	0.22
Phenol Red•Na	0.00331806
DL-6,8-Thioctic acid	0.0002063
ADD	
$NaHCO_3$	2.5
Grams of powder required to prepare 1 L	11.3

REFERENCES

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3. M. E., Tissue Culture Methods and Applications (eds. Kruse and Patterson), Academic Press, New York, (1973).
4. Konigsberg I. R. (1963). Science, 140, 1273.