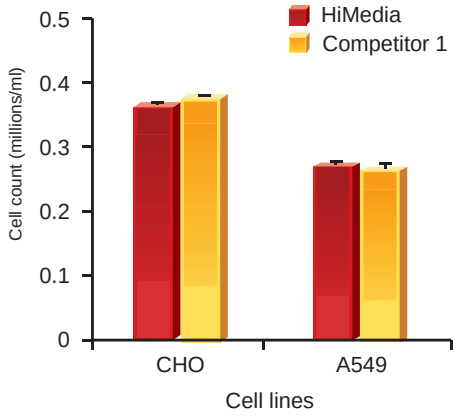
Nutrient Mixtures

F-12 Ham And F-10 Ham

Ham's Nutrient Mixtures were originally developed for single cell plating of near diploid Chinese hamster ovary (CHO) cells and mouse L-cells. Both F-10 and F-12 are formulated for use with or without serum, depending on the type of cells being cultured. Ham's Nutrient Mixture F12 was originally designed for serial propagation and cloning of two CHO cell lines namely, CHD-3 and CHL-1 and mouse L cells. It is the medium of choice for the growth of cells of rodent origin and for cloning of myeloma and hybridoma cells. This medium is also the medium of choice for clonal toxicity assay using CHO cells. Ham's Nutrient Mixture F10 was designed for clonal growth of CHO cells and chick embryo cells under serum free conditions. It is now widely used for culturing a variety of cells, which include human diploid cells and white blood cells for chromosomal analysis, and primary explants of rat, rabbit and chicken tissues.

Suitability of Nutrient Mixture F-12 Ham
for cell culture of CHO and A549 cell lines



Suitability of Nutrient Mixture F-10 Ham
for cell culture of CHO and A549 cell lines

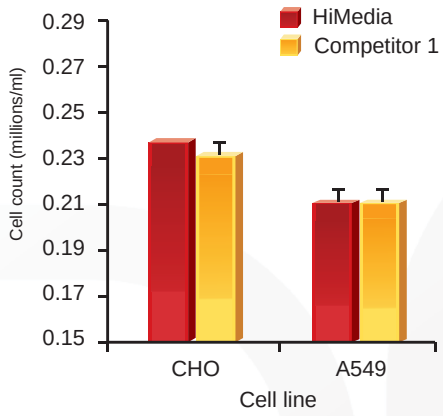


Fig 1.1: Comparative performance of HiMedia and Competitor Nutrient Mixture F-12 Ham and F-10 Ham in CHO and A549

HiMedia Nutrient Mixture F-12 Ham and Nutrient Mixture F-10 Ham supplemented with 10% FBS (Fetal Bovine Serum) were compared to competitor's Nutrient Mixture F-12 Ham and Nutrient Mixture F-10 Ham respectively for growth promotion test for CHO and A549 cell line. Cells were seeded in triplicate in a 24 well plate and incubated at 37°C with 5% CO_2 and 95% air over a 4 day passage cycle. Samples were taken daily and evaluated for cell density and morphology. Data depicted in the graph represents the average count obtained on day 4 of the third passage.

Nutrient Mixture F-12 Ham, Kaighn's Modification

Kaighn's modification of Ham's F-12 is a complex formulation of F-12 with increased amounts of amino acids and pyruvate. Salts used in this formulaton are as given by Konisberg. This modification favors the growth and differentiation of rat and chicken cells and primary human liver cells.

Nutrient Mixture F-12 HAM, Coon's Modification

Coon's Modification of Ham's F-12 was developed to determine the optimal conditions for obtaining viable hybrids by treatment of parental cells with sendai virus. The medium was modified by doubling the concentration of amino acids and pyruvate and adding ascorbic acid.

Applications

Ham's F-12 medium is used for cultivation of CHO cells and other mammalians cells. Ham's F-10 medium is used for cultivation of human diploid cells and white blood cells for chromosomal analysis. Ham's F-10 medium is also used for cultivation of primary cells from rat, rabbit and chicken.

HIMEDIA CellCulture
Enabling Breakthroughs

Ordering Information

Media Specifications		Codes
Nutrient Mixture F-10 Ham		
Nutrient Mixture F-10 Ham, Powder	w/ L-Glutamine w/o Sodium bicarbonate	AT024
Nutrient Mixture F-10 Ham, Powder	w/o L-Glutamine and Sodium bicarbonate	AT024A
Nutrient Mixture F-10 Ham, Powder	w/ L-Glutamine and 25mM HEPES buffer w/o Sodium bicarbonate	AT083
Nutrient Mixture F-10 Ham, Powder	w/ 20mM HEPES and L-Glutamine w/o Sodium bicarbonate	AT184
Nutrient Mixture F-10 Ham, Liquid	w/ 25mM HEPES buffer and Sodium bicarbonate w/o L-Glutamine	AL083
Nutrient Mixture F-10 Ham, Liquid	w/ 25mM HEPES, L-Glutamine and Sodium bicarbonate	AL083A
Nutrient Mixture F-10 Ham, Liquid	w/ Sodium bicarbonate w/o L-Glutamine	AL024
Nutrient Mixture F-10 Ham, Liquid	w/ L-Glutamine and Sodium bicarbonate	AL024A
Nutrient Mixture F-10 Ham, Liquid	w/ 20mM HEPES and Sodium bicarbonate w/o L-Glutamine	AL184
Nutrient Mixture F-10 Ham, Liquid	w/ 20mM HEPES w/o L-Glutamine and Sodium bicarbonate	AL196
HiGlutaXL™ Nutrient Mixture F-10 Ham, Liquid	w/ L-Alanyl-L-Glutamine and Sodium bicarbonate	AL024G
LoSera™ Nutrient Mixture F-10 Ham, Liquid	w/ Sodium bicarbonate w/o L-Glutamine	RSL009
Nutrient Mixture F-12 Ham		
Nutrient Mixture F-12 Ham, Powder	w/ L-Glutamine w/o Sodium bicarbonate	AT025
Nutrient Mixture F-12 Ham, Powder	w/o L-Glutamine and Sodium bicarbonate	AT025A
Nutrient Mixture F-12 Ham, Powder	w/ L-Glutamine and 25mM HEPES buffer w/o Sodium bicarbonate	AT085
Nutrient Mixture F-12 Ham, Powder	w/ L-Glutamine w/o Phenol red, Folic acid and Sodium bicarbonate	AT095
Nutrient Mixture F-12 Ham, Powder	w/o L-Glutamine, Phenol red and Sodium bicarbonate	AT144A
Nutrient Mixture F-12 Ham, Powder	w/ L-Glutamine w/o Phenol red and Sodium bicarbonate	AT144
Nutrient Mixture F-12 Ham, Powder	w/o L-Glutamine, Folic acid, Phenol red and Sodium bicarbonate	AT119A
Nutrient Mixture F-12 Ham, Liquid	w/ Sodium bicarbonate w/o L-Glutamine	AL025
Nutrient Mixture F-12 Ham, Liquid	w/ L-Glutamine and 1.176gms per litre Sodium bicarbonate	AL025A
Nutrient Mixture F-12 Ham, Liquid	w/ 2mM L-Glutamine and 1.5g/L Sodium bicarbonate	AL025S❖
Nutrient Mixture F-12 Ham, Liquid	w/ Sodium bicarbonate and 25mM HEPES buffer w/o L-Glutamine	AL085
HiKaryoXL™ Nutrient Mixture F10 Medium	w/ L-Glutamine, FBS, PHA-M, Penicillin, Streptomycin and Sodium bicarbonate	AL169A
HiGlutaXL™ Nutrient Mixture F-12 Ham, Liquid	w / L-Alanyl-L-Glutamine and Sodium bicarbonate	AL025G
LoSera™ Nutrient Mixture F-12 Ham, Liquid	w/ Sodium bicarbonate w/o L-Glutamine	RSL010
Nutrient Mixture F-12 Ham, Kaighn's Modification		
Nutrient Mixture F12 Ham, Powder	w / L-Glutamine w/o Sodium bicarbonate	AT106
Nutrient Mixture F12 Ham, Powder	w/o L-Glutamine and Sodium bicarbonate	AT106A
Nutrient Mixture F12 Ham, Liquid	w/ Sodium bicarbonate w/o L-Glutamine	AL106
Nutrient Mixture F-12 Ham, Liquid	w/ L-Glutamine and 1.5gms per litre Sodium bicarbonate	AL106S❖
Nutrient Mixture F-12 Ham, Liquid	w/ L-Glutamine and Sodium bicarbonate	AL106A
Nutrient Mixture F-12 Ham, Coon's Modification		
Nutrient Mixture F-12 Ham, Powder	w / L-Glutamine w/o Sodium bicarbonate	AT146
Nutrient Mixture F-12 Ham, Powder	w/o L-Glutamine and Sodium bicarbonate	AT146A
Nutrient Mixture F-12 Ham, Liquid	w/ Sodium bicarbonate w/o L-Glutamine	AL146

❖ As per ATCC composition • Powder media available in 1L, 5L & 20L packing. • Liquid media available in 5X100ML, 2X500ML, 6X500ML and 18X500ML
• Bulk packing available on request. • Customised Media available on request.

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