

## **Ham's F10** w/ L-Glutamine w/o Sodium Bicarbonate

**CAT N°** : P0146

**Theoretical pH** :  $6.5 \pm 0.3$

**Osmolality** : 260 mOsm/kg  $\pm 10\%$

**Storage conditions** : Store dry powder medium at +2°C to +8°C  
Store hydrated medium at +2°C to +8°C, protected from light

**Shelf life** : 36 months

**Endotoxin** : < 1 EU/ml

**Composition** : Displayed on website and in catalogue; also available on request.

**Recommended use :**

- Respect storage conditions of the product
- Do not use the product after its expiry date
- Store the product in a dry area
- Wear clothes adapted to the manipulation of the product to avoid contamination (e.g. : gloves, mask, hygiene cap, overall...)
- Protect the product from any form of humidity
- Use, in one time, after opening, the entire quantity of product of the container, without making a concentrated solution (to avoid the formation of precipitates). If it is not possible, close the container immediately after sampling the quantity of powder required.
- Supplements can be added prior to sterile filtration of the medium or aseptically introduced to sterile medium (respect the final concentration of the media). The nature of the supplements may affect storage conditions and shelf life of the medium.

The product is intended to be used in vitro, in laboratory only. Do not use it in therapy, human or veterinary applications.

**Application :**

Ham's medium were originally developed for the clonal growth of Chinese Hamster Ovary (CHO) cells, HeLa cells and mouse L-cells, with or without serum supplementation depending the cells type. Ham's F10 is a medium of choice for supporting the growth of human diploid cells, white blood cells for chromosomal analysis, primary explants of rat, rabbit and chicken tissues.

**Preparation instructions :**

- 1) Measure 80 - 90% of final required volume of water. Water temperature should be 15-30°C.
- 2) While gently stirring the water, add the powdered medium (9.824 g/l). Stir until dissolved. Do not heat.
- 3) Rinse original package with a small amount of water to remove all traces of powder. Add to solution in step 2.
- 4) For each litre being prepared, add 1.2g sodium bicarbonate (CAT N° : P2060) or 16 ml of 7.5% sodium bicarbonate solution (CAT N° : L0680)
- 5) While stirring, adjust the pH of the medium to 7.0 – 7.15 using 1 N HCl or 1 N NaOH
- 6) Add additional water to bring the solution to final volume.
- 7) Sterilize immediately by filtration using a membrane with a porosity of 0.22 microns.
- 8) Aseptically dispense medium into sterile container.

**Indications of deterioration :**

Dry powder medium should be free flowing. Do not use if powder caked. Prepared medium should be cleared of particulates and flocculent material. Do not use if liquid medium is cloudy or contains precipitate. Other evidence of deterioration may include colour change or degradation of physical or performance characteristics.

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CAS Number	Components	Quantity in g/l
10035-04-8	Calcium Chloride Dihydrate	0.04410000
7487-88-9	Magnesium Sulfate Anhydrous	0.07464000
7758-99-8	Cupric Sulfate Pentahydrate	0.00000250
7782-63-0	Ferrous Sulfate Heptahydrate	0.00083400
7447-40-7	Potassium Chloride	0.28500000
7778-77-0	Potassium Phosphate Monobasic Anhydrous	0.08300000
7647-14-5	Sodium Chloride	7.40000000
7558-79-4	Sodium Phosphate Dibasic Anhydrous	0.15370000
7446-20-0	Zinc Sulfate Heptahydrate	0.00002880
50-99-7	D-Glucose Anhydrous	1.10000000
56-40-6	Glycine	0.00751000
56-41-7	L-Alanine	0.00900000
1119-34-2	L-Arginine Monohydrochloride	0.21100000
5794-13-8	L-Asparagine Monohydrate	0.01501000
56-84-8	L-Aspartic acid	0.01330000
7048-04-6	L-Cysteine Monohydrochloride Monohydrate	0.03500000
56-86-0	L-Glutamic Acid	0.01470000
56-85-9	L-Glutamine	0.14600000
5934-29-2	L-Histidine Monohydrochloride Monohydrate	0.02100000
73-32-5	L-Isoleucine	0.00260000
61-90-5	L-Leucine	0.01310000
657-27-2	L-Lysine Monohydrochloride	0.02930000
63-68-3	L-Methionine	0.00448000
63-91-2	L-Phenylalanine	0.00496000
147-85-3	L-Proline	0.01150000
56-45-1	L-Serine	0.01050000
72-19-5	L-Threonine	0.00357000
73-22-3	L-Tryptophan	0.00060000
69847-45-6	L-Tyrosine Disodium Salt Dihydrate	0.00261000
72-18-4	L-Valine	0.00350000
67-48-1	Choline Chloride	0.00069800
58-85-5	D-Biotin	0.00002400
137-08-6	D-Ca Pantothenate	0.00071500
59-30-3	Folic Acid	0.00132000
87-89-8	Myo-Inositol	0.00054100
98-92-0	Nicotinamide (Nicotinic acid amide)	0.00061500
58-56-0	Pyridoxine Hydrochloride	0.00020600
83-88-5	Riboflavin	0.00037600
67-03-8	Thiamine Hydrochloride	0.00100000
68-19-9	Vitamine B12	0.00136000
68-94-0	Hypoxanthine	0.00408000
34487-61-1	Phenol Red Sodium Salt	0.00130000
113-24-6	Sodium Pyruvate	0.11000000

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CAS Number	Components	Quantity in g/l
1077-28-7	Thioctic Acid	0.00021000
50-89-5	Thymidine	0.00073000
WATER		990.17627970