Dulbecco's Modified Eagle Medium / Nutrient Mixture F-12 Ham (DMEM/ F12, 1:1 Mixture)  
With L-Glutamine, 15mM HEPES buffer and Sodium bicarbonate  
Without Phenol red and Trace elements  
1X Liquid Cell Culture Medium  

Product Code: AL215A

**Product Description:**  
Dulbecco’s Modified Eagle Medium / Nutrient Mixture F12 Ham (DMEM/F12, 1:1 mixture) was originally formulated for rat neuroblastoma cells and MDCK cells. The mixture is extremely nutritious and supports growth of a wide variety of cells including certain epithelial, endothelial and granulosa cells.  

AL215A is DMEM/Nutrient Mixture F-12 Ham with L-glutamine, sodium bicarbonate and 15mM HEPES buffer. It does not contain phenol red and trace elements. HEPES, a zwitterionic buffer having a pKa of 7.3 at 37°C, prevents the initial rise in pH that tends to occur at the initiation of a culture and increases the buffering capacity of the medium. Users are advised to review the literature for recommendations regarding medium supplementation and physiological growth requirements specific for different cell lines.

**Composition:**  

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>mg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INORGANIC SALTS</strong></td>
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</tr>
<tr>
<td>Calcium chloride dihydrate</td>
<td>154.500</td>
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<tr>
<td>Copper sulphate pentahydrate</td>
<td>0.0013</td>
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<tr>
<td>Disodium hydrogen phosphate</td>
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<tr>
<td>Ferric nitrate nonahydrate</td>
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<tr>
<td>Ferrous sulphate heptahydrate</td>
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<tr>
<td>Magnesium chloride hexahydrate</td>
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<tr>
<td>Magnesium sulphate anhydrous</td>
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<td>Potassium chloride</td>
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<td>Sodium bicarbonate</td>
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<tr>
<td>Sodium chloride</td>
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<tr>
<td>Sodium dihydrogen phosphate monohydrate</td>
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<tr>
<td>Zinc sulphate heptahydrate</td>
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<tr>
<td><strong>AMINO ACIDS</strong></td>
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<tr>
<td>Glycine</td>
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<tr>
<td>L-Alanine</td>
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<tr>
<td>L-Arginine hydrochloride</td>
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<td>L-Asparagine monohydrate</td>
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<td>L-Aspartic acid</td>
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<td>L-Cysteine dihydrochloride</td>
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<td>L-Cystine hydrochloride monohydrate</td>
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<td>L-Glutamic acid</td>
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<td>L-Histidine hydrochloride monohydrate</td>
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<td>L-Isoleucine</td>
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<td>L-Leucine</td>
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<td>L-Lysine hydrochloride</td>
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<td>L-Methionine</td>
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<td>L-Phenylalanine</td>
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<td>L-Proline</td>
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<td>L-Tryptophan</td>
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<td>L-Tyrosine disodium salt</td>
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<td>L-Valine</td>
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<td><strong>VITAMINS</strong></td>
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<td>D-Biotin</td>
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<td>D-Pantothenic acid</td>
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<td>Folic acid</td>
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<td>Niacinamide</td>
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<td>Pyridoxine hydrochloride</td>
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<td>Riboflavin</td>
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<td>Thiamine hydrochloride</td>
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<td>Vitamin B12</td>
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<td>myo-Inositol</td>
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<td><strong>OTHERS</strong></td>
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<tr>
<td>D-Glucose</td>
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<tr>
<td>DL-Thiotoic acid</td>
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<tr>
<td>HEPES buffer</td>
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<td>Hypoxanthine</td>
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<tr>
<td>L-Glutamine</td>
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<td>Linoleic acid</td>
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<td>Putrescine hydrochloride</td>
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<td>Sodium pyruvate</td>
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<td>Thymidine</td>
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</table>
Quality Control:

Appearance
Colourless, clear solution

pH
7.00 - 7.60

Osmolality in mOsm/Kg H2O
290.00 - 330.00

Sterility
No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

Cultural Response
The growth promotion capacity of the medium is assessed qualitatively by analyzing the cells for the morphology and quantitatively by estimating the cell counts and comparing it with a control medium.

Endotoxin Content
NMT 1EU/ml

Storage and Shelf Life:
Store at 2-8°C away from bright light.
Shelf life is 12 months.
Use before expiry date given on the product label.

Revision: 0 / 2015

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