

## Technical Information

### HT Medium supplement 50X, Liquid

w/ 680.5 mg/litre Hypoxanthine and 193.8 mg/litre Thymidine in Phosphate Buffered Saline Sterile filtered Cell Culture Tested

#### Product Code: TCL1073

##### Application:-

Monoclonal antibodies are produced by hybridoma technology in which a non-secreting myeloma cell line is fused with an antibody-producing B-lymphocyte. After fusion, the hybrids are most frequently selected with the HAT system consisting of Hypoxanthine, Aminopterin and Thymidine. The two key functions of the HAT system are:

1. to inhibit growth of unfused cells
2. to selectively allow growth of fused or hybrid cells

The specific action of aminopterin present in the HAT system is to inhibit the *de novo* DNA synthesis. Hence, it needs to be eliminated once the hybrids are selected and isolated. Aminopterin is diluted by several passages in hypoxanthine-thymidine (HT) supplemented medium for about 2-3 weeks. Once the *de novo* nucleoside-synthesis pathway has been reinstated, HT supplementation can be discontinued.

TCL1073 is a sterile filtered, cell culture tested 50X HT medium supplement containing 680.5 mg/litre Hypoxanthine and 193.8 mg/litre Thymidine in Phosphate Buffered Saline.

#### Methodology

1. Aseptically transfer 10 ml of the 50X HT medium supplement to 500ml of sterile medium.
2. Tightly cap the media bottle and mix gently to ensure proper mixing.  
Note: Do not mix vigorously as it may lead to formation of foam.
3. The final concentrations of hypoxanthine and thymidine in 500ml media will be 100mM and 16mM, respectively.

#### Quality control

##### Appearance

Colorless, clear solution

##### pH

9.00 to 10.50

##### Cell Culture Test

Passes

##### Sterility

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

##### Endotoxin Content

NMT 1EU/ml

#### Storage and Shelf Life

Store the product at -20°C. After dilution with medium, store at 2-8°C.

Use before expiry date given on the product label.

### Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conforms solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
- **Central Drug House Pvt. Ltd.** reserves the right to make changes to specifications and information related to the products at any time.
- Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.
- Do not use the products if it fails to meet specifications for identity and performance parameters.