

Cholesterol

Cell culture tested

Product Code: TC101

Product Description :

Molecular Weight: 386.65

Molecular Formula: $C_{27}H_{46}O$

CAS No.: 57-88-5

Synonym: 3 β -Hydroxy-5-cholestene 5-Cholesten-3 β -ol

Cholesterol is a steroid alcohol that has a characteristic structure with four fused rings. Presence of only one polar functional group makes it non-polar, with characteristically low aqueous solubility and high lipid solubility. Cholesterol is a major component of all biological membranes and it is an important building block used by cells to make other lipids. It is essential for proliferation, growth and survival of cultured cells.

In cell culture applications, cholesterol is used as an additive in serum free media. It is an important attachment factor for increased plating efficiency. It protects cells from shear stress. Cholesterol is also used as a component in sperm cryopreservation media. Cholesterol is a major component of liposomes that are used as drug delivery systems. It is a component used for preparation and study of artificial model membranes

Directions :

Preparation instructions:

Cholesterol is insoluble in water and soluble in Tween, chloroform and ethanol. Cholesterol solutions can be sterilized by filtering through a sterile membrane with porosity 0.22 microns or less.

Quality Control:

Appearance

White to off-white crystals or powder or flakes

Solubility

100 mg soluble in 1 mL of chloroform

FTIR (KBr disc)

Matches with the standard pattern

Melting range

147 - 149°C

Assay (GC)

98.00 -100.00%

Cell Culture Test

Passes

Storage and Shelf Life:

Store cholesterol powder and solutions at 2°-8°C.

Shelf life is 48 months.

Use before expiry date given on the product label.

Disclaimer :

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