**Proteins** 



# Solutol HS-15

Cat. No.: HY-Y1893 CAS No.: 61909-81-7

Molecular Formula:  $(C_{2}H_{4}O)nC_{18}H_{36}O_{3}$ 

Target: **Biochemical Assay Reagents** 

Pathway: Others

Storage: 4°C, sealed storage, away from moisture

$$OH$$
  $OH$   $OH$   $OH$ 

**Product** Data Sheet

#### **SOLVENT & SOLUBILITY**

In Vitro Ethanol: 100 mg/mL (Need ultrasonic)

H<sub>2</sub>O: 25 mg/mL (Need ultrasonic)

## **BIOLOGICAL ACTIVITY**

Description Solutol HS-15, a Macrogol 15 hydroxy stearate, is a permeability enhancer<sup>[1]</sup>.

In Vitro Solutol HS-15 is used to increase the aqueous solubility of Biopharmaceutical Classification System (BCS) Class 2 and 4

lipophilic molecules. Solutol HS-15 has shown an enhancement in permeability of medium sized biological drugs across epithelia<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### **PROTOCOL**

Cell Assay [1]

For both MTS and LDH cell viability assays, cells are seeded at a density of 1×10<sup>4</sup> cells on 96-well plates and cultured for a minimum of 24 h. Solutol HS-15 (in 25 mM HBSS:HEPES, pH 7.4) solutions are applied at concentrations above and below the critical micelle concentration (CMC) (0.01 mM to 20 mM) and cytotoxicity is determined using the MTS and LDH assays. 25 mM HBSS:HEPES is used as a negative control and Triton-X 100 (3 mM) as a positive control. Following 3 h incubation, the MTS reagent in media and LDH working solution are added to the cells and the cells are incubated for a further 3 h at 37°C<sup>[1]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## **CUSTOMER VALIDATION**

- Cancer Cell. 2022 Oct 26;S1535-6108(22)00495-0.
- Cancer Cell. 2020 Dec 14;38(6):844-856.e7.
- Nat Commun. 2023 Sep 18;14(1):5666.

- Cell Rep Med. 2023 Apr 18;4(4):101015.
- Eur J Med Chem. 5 February 2022, 114166.

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#### **REFERENCES**

[1]. Shubber S, et al. Mechanism of mucosal permeability enhancement of CriticalSorb (Solutol HS15) investigated in vitro in cell cultures. Pharm Res. 2015 Feb;32(2):516-27.

Caution: Product has not been fully validated for medical applications. For research use only.

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