Proteins

Product Data Sheet

CHAPS

Cat. No.: HY-15435 CAS No.: 75621-03-3 Molecular Formula: $C_{32}H_{58}N_2O_7S$ Molecular Weight: 614.88 Target: Others Pathway: Others

Storage: Powder -20°C 3 years

4°C 2 years

In solvent -80°C 6 months

> -20°C 1 month

SOLVENT & SOLUBILITY

In Vitro H₂O: 83.33 mg/mL (135.52 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.6263 mL	8.1317 mL	16.2633 mL
	5 mM	0.3253 mL	1.6263 mL	3.2527 mL
	10 mM	0.1626 mL	0.8132 mL	1.6263 mL

Please refer to the solubility information to select the appropriate solvent.

1. Add each solvent one by one: PBS In Vivo

Solubility: 10 mg/mL (16.26 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description	CHAPS, a derivative of Cholic acid, is a zwitterionic detergent for solubilizing membrane proteins. CHAPS is used for stabilization of various protein-DNA complexes and can retain biochemical activity of proteins in solution ^{[1][2]} .
In Vitro	CHAPS (0.5 %) is able to stabilize complexes between DNA and DNA-binding factors such as AP-1, SPI, GATA-1 and α -regulated factor ISGF3, and retains their biochemical activity ^[2] . CHAPS can prevent dissociation of mononucleosomes diluted to sub-nanomolar concentrations ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

• J Colloid Interface Sci. 2019 May 1;543:96-105.

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REFERENCES

[1]. Menshikova I, et al. Nucleosomes structure and dynamics: effect of CHAPS. Int J Biochem Mol Biol. 2011;2(2):129-137.

[2]. Kroflic A, et al. Thermodynamic characterization of 3-[(3-cholamidopropyl)-dimethylammonium]-1-propanesulfonate (CHAPS) micellization using isothermal titration calorimetry: temperature, salt, and pH dependence. Langmuir. 2012 Jul 17;28(28):10363-71.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA

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