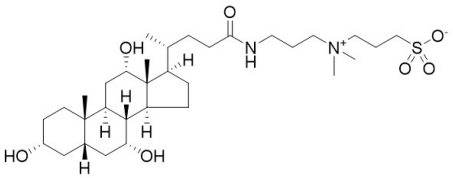
Technical Data Sheet

CHAPS

Catalog Numbers: CHA01, CHA02, CHA03



Chemical Name	3-[(3-Cholamidopropyl) dimethylammonio]-1-propanesulfonate
CAS Number	75621-03-3
Molecular Formula	$C_{32}H_{58}N_2O_7S$
Molecular Weight	614.88
Purity	≥ 99%
Appearance	White to pale white powder
Solubility	Soluble in water (100 mg/mL, 25 °C)
pH	5.0-8.0
Critical Micelle Concentration (CMC)	6–10 mM
Micellar Molecular Weight	6,150
Sterile	No (non-sterile packaging)

Product Description

CHAPS (3-[(3-cholamidopropyl) dimethylammonio]-1-propanesulfonate) is a non-denaturing zwitterionic detergent for membrane biochemistry. It solubilizes membrane proteins and disrupts protein-protein interactions. CHAPS has a low micellar molecular weight (6,150) and a high critical micelle concentration (6–10 mM), so it can be removed from samples by dialysis. It is also suitable for solubilizing proteins in isoelectric focusing (IEF) and two-dimensional electrophoresis. CHAPS is commonly used in non-denaturing (urea-free) isoelectric focusing and has been found to give excellent resolution for certain subcellular preparations and plant proteins; concentrations between 2% and 4% (w/v) are typically used for IEF gels. As an amphoteric surfactant, CHAPS also serves as a component of protein lysis buffers and is widely used in molecular biology, pharmacology, and related research fields.

Transportation and Storage

- Storage: room temperature, protected from light and moisture, tightly sealed, and dry
- Ship at ambient temperature

Applications

This product meets a variety of membrane protein and protein research needs, including but not limited to:

- Solubilization of membrane proteins under non-denaturing conditions
- Disruption of protein-protein interactions
- Isoelectric focusing (IEF, non-denaturing urea-free system, typically 2%-4% w/v) and two-dimensional electrophoresis
- Protein lysis buffer/sample preparation
- Systems requiring detergent removal by dialysis (low micellar molecular weight and high CMC allow easy removal)

Notice

1. To ensure the safety and health of operators, laboratory coats and disposable gloves must be worn throughout the entire experimental procedure.
2. Certain technical information provided with this product is intended for customer reference, academic communication, and scientific research purposes only. Our company does not warrant the absolute accuracy or completeness of the information provided.
3. This product is for research use only. It is strictly prohibited for use in clinical diagnosis, treatment, food, pharmaceuticals, or any other applications involving human use. Do not store this product in ordinary residential premises.