

Niemann Pick C1/NPC1 Protein, Human (His)

| | |
|--------------------------|--|
| Cat. No.: | HY-P74695 |
| Synonyms: | NPC intracellular cholesterol transporter 1; Niemann-Pick C1 protein; NPC1 |
| Species: | Human |
| Source: | HEK293 |
| Accession: | O15118-1 (R372-F622) |
| Gene ID: | 4864 |
| Molecular Weight: | Approximately 38-55 kDa |

PROPERTIES

| | |
|--------------------------------|--|
| AA Sequence | <pre> R V T T N P V D L W S A P S S Q A R L E K E Y F D Q H F G P F F R T E Q L I I R A P L T D K H I Y Q P Y P S G A D V P F G P P L D I Q I L H Q V L D L Q I A I E N I T A S Y D N E T V T L Q D I C L A P L S P Y N T N C T I L S V L N Y F Q N S H S V L D H K K G D D F F V Y A D Y H T H F L Y C V R A P A S L N D T S L L H D P C L G T F G G P V F P W L V L G G Y D D Q N Y N N A T A L V I T F P V N N Y Y N D T E K L Q R A Q A W E K E F I N F V K N Y K N P N L T I S F T A E R S I E D E L N R E S D S D V F </pre> |
| Appearance | Lyophilized powder |
| Formulation | Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. |
| Endotoxin Level | <1 EU/µg, determined by LAL method. |
| Reconstitution | It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose). |
| Storage & Stability | Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage. |
| Shipping | Room temperature in continental US; may vary elsewhere. |

DESCRIPTION

| | |
|-------------------|--|
| Background | <p>The Niemann Pick C1 (NPC1) Protein serves as an intracellular cholesterol transporter, working in tandem with NPC2 to facilitate the egress of cholesterol from the endosomal/lysosomal compartment. Unesterified cholesterol released from LDLs in the late endosomes/lysosomes is transferred by NPC2 to the cholesterol-binding pocket in the N-terminal domain of NPC1. Cholesterol binds to NPC1 with its hydroxyl group buried in the binding pocket, and NPC1 exhibits a higher affinity for oxysterol compared to cholesterol. Beyond cholesterol transport, NPC1 may play a role in vesicular trafficking in glia, crucial</p> |
|-------------------|--|

for maintaining the structural and functional integrity of nerve terminals. Additionally, NPC1 inhibits cholesterol-mediated mTORC1 activation through its interaction with SLC38A9. In the context of microbial infection, NPC1 acts as an endosomal entry receptor for ebolavirus, highlighting its diverse roles in cellular processes and its significance in health and disease.

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