Niemann Pick C2/NPC2 Protein, Human (HEK293, His)

Cat. No.:	HY-P74694
Synonyms:	NPC intracellular cholesterol transporter 2; Niemann-Pick disease type C2 protein; HE1
Species:	Human
Source:	HEK293
Accession:	P61916 (E20-L151)
Gene ID:	10577
Molecular Weight:	21-24 kDa & 27-35 kDa

PROPERTIES

AA Sequence	E P V Q F K D C G S V D G V I K E V N V S P C P T Q P C Q L S K G Q S Y S V N V T F T S N I Q S K S S K A V V H G I L M G V P V P F P I P E P D G C K S G I N C P I Q K D K T Y S Y L N K L P V K S E Y P S I K L V V E W Q L Q D D K N Q S L F C W E I P V Q I V S H L
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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	Niemann Pick C2 (NPC2) functions as a crucial intracellular cholesterol transporter, collaborating synergistically with NPC1 in facilitating the efflux of cholesterol from the lysosomal compartment. Upon the release of unesterified cholesterol from LDLs within the lumen of late endosomes/lysosomes, NPC2 plays a pivotal role by transferring cholesterol to the cholesterol-binding pocket located in the N-terminal domain of NPC1. Notably, NPC2 exhibits a 1:1 stoichiometry in binding cholesterol and demonstrates the capacity to bind various sterols, including lathosterol, desmosterol, and plant sterols like stigmasterol and beta-sitosterol. Moreover, NPC2 may bind and mobilize cholesterol associated with membranes. The secreted form of NPC2 further contributes to the regulation of biliary cholesterol secretion by stimulating ABCG5/ABCG8-mediated cholesterol transport.

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

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