Recombinant Dog NPC2 Protein (22-149 aa), His-tagged

Cat. No. NPC2-1018D **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Dog NPC2 Protein (22-149 aa) is produced by E. coli expression system. This protein is fused with a 6xHis tag at the N-terminal. Protein Description: Full Length of Mature Protein.
Species	Dog
Source	E.coli
ProteinLength	22-149 aa
Description	Intracellular cholesterol transporter which acts in concert with NPC1 and plays an important role in the egress of cholesterol from the endosomal/lysosomal compartment. Both NPC1 and NPC2 function as the cellular 'tag team duo' (TTD) to catalyze the mobilization of cholesterol within the multivesicular environment of the late endosome (LE) to effect egress through the limiting bilayer of the LE. NPC2 binds unesterified cholesterol that has been released from LDLs in the lumen of the late endosomes/lysosomes and transfers it to the cholesterol-binding pocket of the N-terminal domain of NPC1. Cholesterol binds to NPC1 with the hydroxyl group buried in the binding pocket and is exported from the limiting mbrane of late endosomes/ lysosomes to the ER and plasma mbrane by an unknown mechanism. The secreted form of NCP2 regulates biliary cholesterol secretion via stimulation of ABCG5/ABCG8-mediated cholesterol transport.
Form	Tris-based buffer, 50% glycerol

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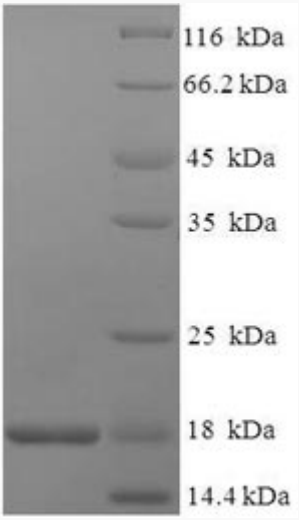
Molecular Mass	18.0 kDa
AA Sequence	VHFKDCGSAVGVIKELNVNPCPAQPCKLHKGQSYSVNVTFTSNIPSQSSKAVVHGIV LGVAVPFPIPEADGCKSGINCPIQKDKTYSYLNKLPVKNEYPSIKLVVQWMLLGDNN QHLFCWEIPVQIEG
Purity	> 90% as determined by SDS-PAGE.
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade.
Concentration	A hardcopy of COA with concentration instruction is sent along with the products.

GENE INFORMATION

Gene Name	NPC2 Niemann-Pick disease, type C2 [Canis lupus familiaris]
Official Symbol	NPC2
Synonyms	NPC2; Niemann-Pick disease, type C2; CE1;
Gene ID	403920
mRNA Refseq	NM_001003242
Protein Refseq	NP_001003242

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UniProt ID	Q28895



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

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