Human ENPP7 / NPP-7 Protein (His Tag)

Catalog Number: **10885-H08H**

General Information

Gene Name Synonym:

ALK-SMase; E-NPP7; NPP-7; NPP7

Protein Construction:

A DNA sequence encoding the human ENPP7 (NP_848638.2) (Met 1-Ser 439) was fused with a C-terminal polyhistidine tag.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Ala 22

Molecular Mass:

The secreted recombinant human ENPP7 comprises 429 amino acids with a predicted molecular mass of 49 kDa. As a result of glycosylation, rh ENPP7 migrates as an approximately 55-60 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

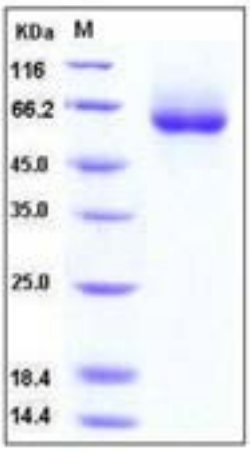
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Ectonucleotide pyrophosphatase / phosphodiesterase family member 7, also known as Alkaline sphingomyelin phosphodiesterase, Intestinal alkaline sphingomyelinase, Alk-Smase, ENPP7 and NPP-7, is a single-pass type I membrane protein which belongs to thenucleotide pyrophosphatase / phosphodiesterase family. ENPP7 / NPP-7 is expressed in the intestines and human bile. ENPP7 / NPP-7 is localized at the surface of the microvillar membrane in small intestine enterocytes, as well as in endosome-like structures and in Golgi complex. The main function of ENPP7 / NPP-7 is to convert the dietary sphingomyelin into ceramide, the sphingolipid messengers via hydrolyzation. ENPP7 / NPP-7 is also reported to exert a phospholipase C activity toward palmitoyl lyso-phosphocholine. The activity of this enzyme is inhibited in a dose dependent manner by ATP, imidazole, orthovanadate and zinc ion. Further, It has been shown in studies that decreased levels of ENPP7 / NPP-7 may be associated with human colon cancer.

References

1.Wu J. et al., 2005, Biochem. J. 386:153-60. 2.Wu J. et al., 2004, Carcinogenesis 25:1327-33. 3.Duan R.-D. et al., 2003, J. Lipid Res. 44:1241-50.