Human SMPD1 Protein

Cat. No. SMD-HB101

Description

Source	Recombinant Human SMPD1 Protein is expressed from Baculovirus-Insect Cells(Sf9) with His tag at the C-terminus.
	It contains Met1-Pro628.
Accession	NP_000534.3
Molecular Weight	The protein has a predicted MW of 66.53 kDa. Due to glycosylation, the protein migrates to 67-70 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1 EU per μg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE
	> 95% as determined by HPLC

Formulation and Storage

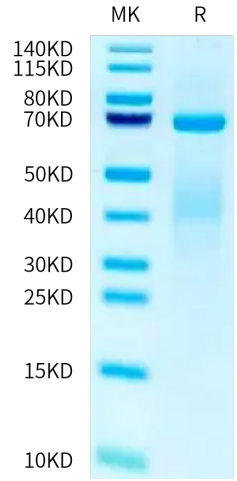
Formulation	Supplied as 0.22 μm filtered solution in 20mM Tris, 500mM NaCl, 25% glycerol (pH 7.5).
Storage	Valid for 12 months from date of receipt when stored at -80°C. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

Sphingomyelin phosphodiesterase 1 (SMPD1) converts sphingomyelin into ceramide and phosphocholine; hence, loss of SMPD1 function causes abnormal accumulation of sphingomyelin in lysosomes, which results in the lipid-storage disorder Niemann-Pick disease (types A and B). SMPD1 activity is dependent on zinc, which is coordinated at the active site of the enzyme.

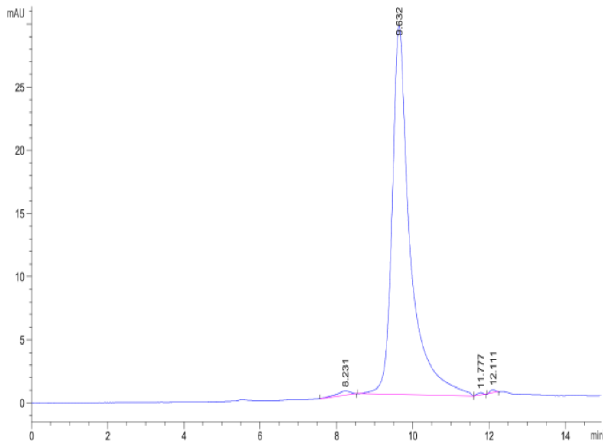
Assay Data

Bis-Tris PAGE



Human SMPD1 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC



The purity of Human SMPD1 is greater than 95% as determined by SEC-HPLC.

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Bioactivity Data

Measured by its ability to cleave 2-N-Hexadecanoylamino-4-nitrophenylphosphorylcholine (HNPPC). The specific activity is > 1500 pmol/min/μg.