

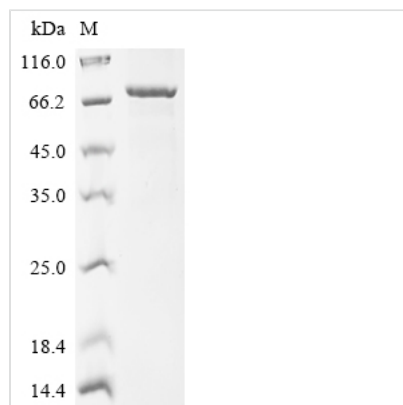


Recombinant Human Sphingomyelin phosphodiesterase (SMPD1)

Product Code	CSB-EP021845HUa2
Abbreviation	Recombinant Human SMPD1 protein
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°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P17405
Form	Liquid or Lyophilized powder
Storage Buffer	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose.
Product Type	Recombinant Human Sphingomyelin phosphodiesterase(SMPD1)
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	LALSDSRVLWAPAEAHPLSPQGHPARLHRIVPRLRDVFGWGNLTCPICKGLFT AINLGLKKEPNVARVGSVAIKLCNLLKIAPPAVCQSIVHLFEDDMVEVWRRSVL SPSEACGLLLGSTCGHWDIFSSWNISLPTVPKPPPKPPSPAPGAPVSRILFLT DLHWDHDYLEGTDPCADPLCCRRGSGLPASRPGAGYWGEYSKCDLPLRT LESLLSGLGPAGPFDMVYWTGDIPAHDVWHQTRQDQLRALTTVTALVRKFLG PVPVYPAVGNHSTPVSFPPPFIEGNHSSRWLYEAMAKAWEPWLPAEALRT LRIGGFYALSPYPGLRLISLNMNFCSRENFWLLINSTDPAGQLQWLVGELQAA EDRGDKVHIIGHIPPGHCLKSWSWNYRIVARYENTLAAQFFGHTHVDEFEVF YDEETLSRPLAVAFLAPSATTYIGLNPGYRVYQIDGNYSGSSHVVLDHETYILNL TQANIPGAIPHWQLLYRARETYGLPNTLPTAWHNLVYRMRGDMQLFQTFWFL YHKGHPPSEPCGTPCRLATLCAQLSARADSPALCRHLMPDGSLPEAQLSWPR PLFC
Research Area	Neuroscience
Source	E.coli
Target Names	SMPD1
Expression Region	47-631aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	78.2 kDa
Protein Length	Full Length of Mature Protein



Image



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

Description

This recombinant human sphingomyelin phosphodiesterase (SMPD1) is generated by inserting the gene encoding the full-length mature human SMPD1 protein (47-631aa) and the N-terminal 6xHis-SUMO-tag gene into a plasmid and transferring the recombinant plasmid into E.coli cells for protein production. The recombinant gap protein is isolated and purified from the cell lysate. Its purity is greater than 90% measured by SDS-PAGE. On the gel, the recombinant SMPD1 protein appears as a band with a molecular weight of approximately 79 kDa.

SMPD1 mainly hydrolyzes sphingomyelin, a key component of cell membranes, into ceramide and phosphocholine. This enzymatic activity is essential for sphingolipid metabolism, lysosomal function, cellular signaling, and maintaining cellular homeostasis.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.