SMPD2 Protein, Human (Cell-Free, His)

Cat. No.:	HY-P702447
Synonyms:	Sphingomyelin phosphodiesterase 2; Lyso-platelet-activating factor-phospholipase C; Lyso-PAF-PLC; Neutral sphingomyelinase; N-SMase; nSMase; nSMase1
Species:	Human
Source:	E. coli Cell-free
Accession:	O60906 (M1-Q423)
Gene ID:	6610
Molecular Weight:	49.1 kDa

PROPERTIES

AA Sequence	M K P N F S L R L R I F N L N C W G I P Y L S K H R A D R M R R L G D F L N Q E S F D L A L L E E V W S E Q D F Q Y L R Q K L S P T Y P A A H H F R S G I I G S G L C V F S K H P I Q E L T Q H I Y T L N G Y P Y M I H H G D W F S G K A V G L L V L H L S G M V L N A Y V T H L H A E Y N R Q K D I Y L A H R V A Q A W E L A Q F I H H T S K K A D V V L L C G D L N M H P E D L G C C L L K E W T G L H D A Y L E T R D F K G S E E G N T M V P K N C Y V S Q Q E L K P F P F G V R I D Y V L Y K A V S G F Y I S C K S F E T T T G F D P H R G T P L S D H E A L M A T L F V R H S P P Q Q N P S S T H G P A E R S P L M C V L K E A W T E L G L G M A Q A R W W A T F A S Y V I G L G L L L L A L L C V L A A G G G A G E A A I L L W T P S V G L V L W A G A F Y L F H V Q E V N G L Y R A Q A E L Q H V L G R A R E A Q D L G P E P Q P A L L L G Q Q E G D R T K E Q
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
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. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
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	Sphingomyelin Phosphodiesterase 2 (SMPD2) is an enzyme that catalyzes the hydrolysis of sphingomyelin, cleaving it into ceramide and phosphocholine. This enzymatic activity is essential for sphingolipid metabolism and the regulation of cellular signaling. SMPD2 is also involved in the hydrolysis of 1-O-alkyl-2-lyso-sn-glycero-3-phosphocholine, specifically lyso-platelet-activating factor, in vivo. Additionally, SMPD2 acts on 1-acyl-2-lyso-sn-glycero-3-phosphocholine (lyso-PC) and sphingosylphosphocholine. The diverse substrate specificity of SMPD2 highlights its role in modulating the levels of bioactive lipid molecules, including ceramides and lysophospholipids, which are implicated in various cellular processes, including cell proliferation, apoptosis, and inflammation. Understanding the functions of SMPD2 provides insights into the intricate regulation of lipid metabolism and its impact on cellular homeostasis.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA