

DESCRIPTION

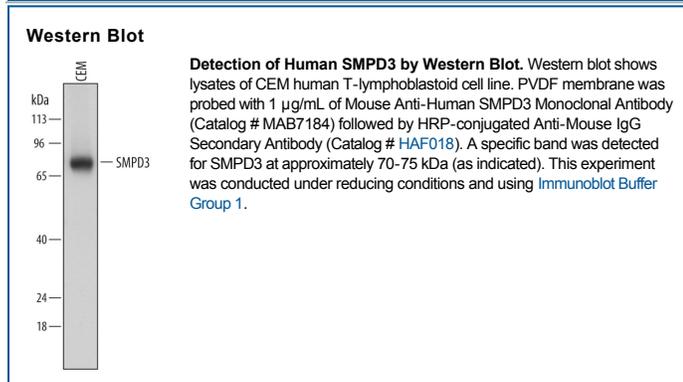
Species Reactivity	Human
Specificity	Detects human SMPD3 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) SMPD1 or rhPP2A is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 758612
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human SMPD3 Val2-Ala655 Accession # Q9NY59
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

SMPD3 (Sphingomyelin phosphodiesterase 3; also Neutral sphingomyelinase 2/nSMase2) is a 69-74 kDa member of the neutral sphingomyelinase family of enzymes. It is a monomeric Golgi/plasma membrane enzyme that converts sphingomyelin (a plasma membrane lipid) into ceramide and phosphorylcholine. This generates second messenger components that participate in signal transduction. Human SMPD3 is a two transmembrane, 655 amino acids molecule. It contains an N-terminal luminal segment (aa 1-10), a cytoplasmic region (aa 32-64), and one catalytic domain (aa 340-646). Phosphorylation increases its MW to 78 kDa in SDS-PAGE. There is one potential isoform that possesses an Asn substitution for aa 569-587. Over aa 2-655, human SMPD3 shares 91% aa sequence identity with mouse SMPD3.