

DESCRIPTION

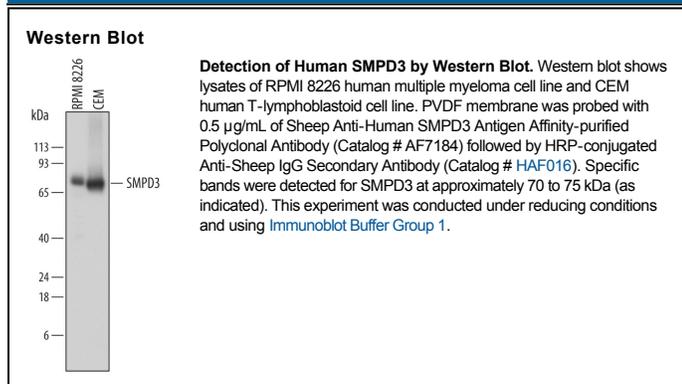
Species Reactivity	Human
Specificity	Detects human SMPD3 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human SMPD3 Val2-Ala655 Accession # Q9NY59
Formulation	Lyophilized 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	0.5 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 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.