

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
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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.

PRODUCT SPECIFIC NOTICES

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