Human SMPD1 Alexa Fluor® 700-conjugated Antibody

Monoclonal Mouse IgG_{2A} Clone # 563418

Catalog Number: FAB5348N

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human SMPD1 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human SMPD3 and recombinant mouse SMPD1 is observed.
Source	Monoclonal Mouse IgG_{2A} Clone # 563418
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human SMPD1 isoform 1 His62-Pro628 Accession # NP_000534
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.*

Neutralization	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	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

Sphingomyelin phosphodiesterase, also known as acid sphingomyelinase and encoded by the SMPD1 gene, is a lysosomal phosphodiesterase which belongs to the acid sphingomyelinase family (1). SMPD1 catalyzes the hydrolysis of sphingomyelin to ceramide and phosphorylcholine. Ceramide, a bioactive lipid, has emerged as an important signaling molecule involved in a variety of cellular processes such as cell differentiation, apoptosis, and proliferation (2). Activation of SMPD1 occurs by the removal, chemical modification or dimerization of its C-terminal cysteine residue (3). Deficiencies of SMPD1 result in a lysosomal storage disorder referred to as Niemann-Pick disease (4). rhSMPD1 was expressed without the last three C-terminal residues, and is therefore constitutively active.

PRODUCT SPECIFIC NOTICES

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