

Rabbit SMPD2 Polyclonal Antibody | anti-SMPD2 antibody

SMPD2 Antibody

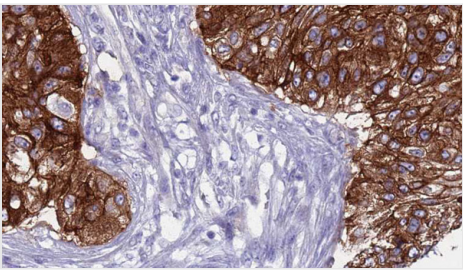
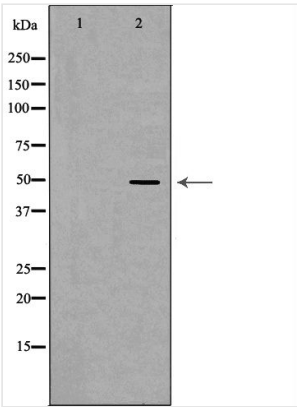
CATALOG # AAA326079	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS ELISA, Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

SMPD2; Polyclonal Antibody; SMPD2 Antibody; ISC1; Lyso platelet activating factor phospholipase C; Lyso-PAF-PLC; Lyso-platelet-activating factor-phospholipase C; N-SMase; Neutral sphingomyelinase; NSMA_HUMAN; nSMase; NSMASE1; Smpd2; Sphingomyelin phosphodiesterase 2; neutral membrane (neutral sphingomyelinase); anti-SMPD2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	SMPD2 antibody detects endogenous levels of total SMPD2
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	423
Applicable Applications for anti-SMPD2 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human SMPD2
Predicted Cross Reactivity	Rabbit
Similarity	Rabbit (88%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
AAA326079 at 1/100 staining Human urothelial cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

WB (Western Blot)
Western blot analysis of brain lysate using SMPD2 antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-SMPD2 antibody

Description: Sphingomyelinases (SMases) catalyze the hydrolysis of sphingomyelin to produce ceramide and phosphocholine (1). Ceramide is an important bioactive lipid triggering signal transduction involved in cell proliferation, apoptosis and differentiation (1, 2). A number of SMases have been described and categorized based on their optimum pH activity, cation dependence, tissue distribution, and subcellular localization (1). These include a lysosomal acid SMase, a Zn⁺⁺-dependent secreted acid SMase, a membrane-bound Mg⁺⁺-dependent neutral SMase, a Mg⁺⁺-independent neutral SMase, and an alkaline SMase. nSMase1 (also termed SMPD2) is a Mg⁺⁺-dependent neutral SMase that is widely expressed and predominantly localized to the endoplasmic reticulum (3, 4). This protein has also been shown to have lyso-platelet activating factor (PAF) phospholipase C activity (5). A second neutral SMase, nSMase2 (also termed SMPD3) is predominantly expressed in the brain (6). The activity of neutral SMases is regulated by oxidative stress, chemotherapeutic drugs, inflammatory cytokines, and apoptotic stimuli (1). Analysis of single and double knockouts of the SMPD2 and SMPD3 has revealed that loss of both genes leads to complete loss of neutral SMase activity with developmental defects observed with loss of nSMase2 (7, 8). Function: Converts sphingomyelin to ceramide. Hydrolyze 1-acyl-2-lyso-sn-glycero-3-phosphocholine (lyso-PC) and 1-O-alkyl-2-lyso-sn-glycero-3-phosphocholine (lyso-platelet-activating factor). The physiological substrate seems to be Lyso-PAF. Similarity: Belongs to the neutral sphingomyelinase family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	92859618
NCBI GeneID	6610
NCBI Accession #	NP_003071.2
NCBI GenBank Nucleotide #	NM_003080.2
UniProt Accession #	O60906; Q5TED1; Q9BWR3
Molecular Weight	Observed: 48 kDa Predicted: 48 kDa
NCBI Official Full Name	sphingomyelin phosphodiesterase 2
NCBI Official Synonym Full Names	sphingomyelin phosphodiesterase 2
NCBI Official Symbol	SMPD2
NCBI Official Synonym Symbols	ISC1; NSMASE; NSMASE1
NCBI Protein Information	sphingomyelin phosphodiesterase 2
UniProt Protein Name	Sphingomyelin phosphodiesterase 2

UniProt Gene Name	SMPD2
UniProt Synonym Gene Names	Lyso-PAF-PLC; N-SMase; nSMase

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/smpd2-antibody-immunohistochemistry-western-blot-elisa/326079>