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# SMPD2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2822a

## Product Information

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| **Application** | WB, FC, E |
| **Primary Accession** | O60906 |
| **Reactivity** | Human, Mouse |
| **Predicted** | Rat, Bovine, Canine |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB17400 |
| **Calculated MW** | 47646 |
| **Antigen Region** | 9-35 |

## Additional Information

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| **Gene ID** | 6610 |
| **Other Names** | Sphingomyelin phosphodiesterase 2, Lyso-platelet-activating factor-phospholipase C, Lyso-PAF-PLC, Neutral sphingomyelinase, N-SMase, nSMase, SMPD2 |
| **Target/Specificity** | This SMPD2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 9-35 amino acids from the N-terminal region of human SMPD2. |
| **Dilution** | WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | SMPD2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | SMPD2 ( HGNC:11121) |
| **Function** | Catalyzes, at least in vitro, the hydrolysis of sphingomyelin to form ceramide and phosphocholine (PubMed:10608884). Also hydrolyzes |

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| | 1-O-alkyl-2-lyso-sn-glycero-3-phosphocholine (lyso-platelet-activating factor) in vivo (PubMed:10608884). Also acts on 1-acyl-2-lyso-sn-glycero-3-phosphocholine (lyso-PC) and sphingosylphosphocholine (PubMed:10608884, PubMed:14741383). |
| **Cellular Location** | Cell membrane {ECO:0000250\|UniProtKB:O70572}; Multi-pass membrane protein |

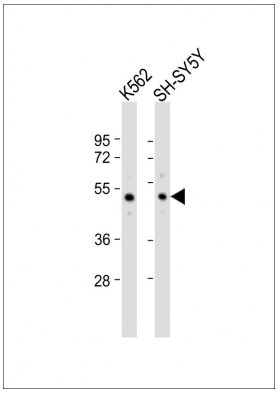
## Background

SMPD2 converts sphingomyelin to ceramide and hydrolyzes 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.

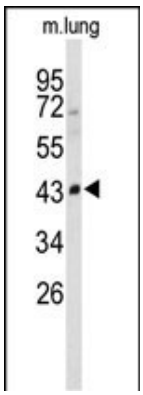
## References


Kim,H.T., J. Dermatol. Sci. 46 (2), 143-146 (2007)
Tani,M., J. Biol. Chem. 282 (13), 10047-10056 (2007)
Marchesini,N.,J. Biol. Chem. 279 (24), 25101-25111 (2004)


## Images

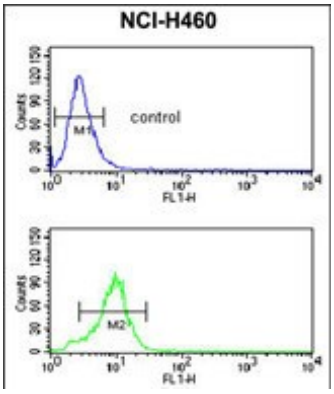



All lanes : Anti-SMPD2 Antibody (N-term) at 1:1000 dilution Lane 1: K562 whole cell lysate Lane 2: SH-SY5Y whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 48 kDa Blocking/Dilution buffer: 5% NFDM/TBST.




Western blot analysis of SMPD2 Antibody (N-term) (Cat. #AP2822a) in mouse lung tissue lysates (35ug/lane). SMPD2 (arrow) was detected using the purified Pab.

SMPD2 Antibody (N-term) (Cat. #AP2822a) flow cytometric analysis of NCI-H460 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.




Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.