

For Research Use Only

# SMPDL3A Polyclonal antibody, PBS Only

Catalog Number: 16310-1-PBS



## Basic Information

<b>Catalog Number:</b> 16310-1-PBS	<b>GenBank Accession Number:</b> BC018999	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 100ug , Concentration: 1 mg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 10924	
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q92484	
<b>Isotype:</b> IgG	<b>Full Name:</b> sphingomyelin phosphodiesterase, acid-like 3A	
<b>Immunogen Catalog Number:</b> AG9340	<b>Calculated MW:</b> 453 aa, 51 kDa	
	<b>Observed MW:</b> 51 kDa	

## Applications

**Tested Applications:**  
WB, Indirect ELISA

**Species Specificity:**  
human, rat

## Background Information

Sphingomyelin phosphodiesterase acid-like 3A (SMPDL3A) is a secreted metallophosphoesterase belonging to the calcineurin-like phosphoesterase superfamily, closely related to acid sphingomyelinase (ASMase). Despite its name, SMPDL3A lacks activity against sphingomyelin and instead functions as a nucleotide phosphodiesterase, hydrolyzing nucleoside di- and triphosphates such as ATP. The enzyme contains a binuclear zinc center in its active site and exhibits an acidic pH optimum. The expression of SMPDL3A is induced by cholesterol loading and liver X receptor (LXR) ligands. Recent studies have identified SMPDL3A as a negative regulator of innate immunity by degrading 2'3'-cGAMP, thereby inhibiting the cGAS-STING signaling pathway.

## Storage

**Storage:**  
Store at -80°C.

**Storage Buffer:**  
PBS only, pH7.3

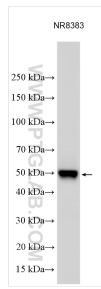
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## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 16310-1-AP (SMPDL3A antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 16310-1-PBS in a different storage buffer formulation.