SANTA CRUZ BIOTECHNOLOGY, INC.

SMPDL3B (H-76): sc-68845

BACKGROUND

SMPDL3B (sphingomyelin phosphodiesterase, acid-like 3B), also known as ASMLPD or ASML3B (acid sphingomyelinase-like phosphodiesterase 3B), is a 455 amino acid secreted protein belonging to the acid sphingomyelinase family. It is expressed in granulosa cells of the ovarian follicle and is a homolog of ASM (acid sphingomyelinase). ASM is a lysosomal protein that hydrolyzes sphingomyelin to ceramide and phosphocholine playing an important role in apoptosis of germ cell lines. Deficiency of ASM is associated with type A and type B Niemann-Pick disease. Type A is a fatal neurodegenerative disorder seen in infancy and resulting in death by age three, whereas type B is a non-neuropathic disease with a later onset.

REFERENCES

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3. Levran, O., Desnick, R.J. and Schuchman, E.H. 1991. Niemann-Pick disease: a frequent missense mutation in the acid sphingomyelinase gene of Ashkenazi Jewish type A and B patients. Proc. Natl. Acad. Sci. USA 88: 3748-3752.
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CHROMOSOMAL LOCATION

Genetic locus: SMPDL3B (human) mapping to 1p35.3; Smpdl3b (mouse) mapping to 4 D2.3.

SOURCE

SMPDL3B (H-76) is a rabbit polyclonal antibody raised against amino acids 196-271 mapping within an internal region of SMPDL3B of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SMPDL3B (H-76) is recommended for detection of SMPDL3B of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2 µg per 100–500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

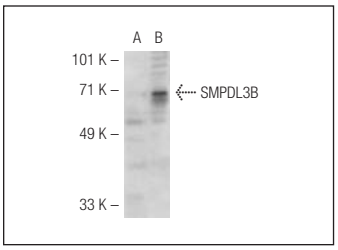
Suitable for use as control antibody for SMPDL3B siRNA (h): sc-76525, SMPDL3B siRNA (m): sc-76526, SMPDL3B shRNA Plasmid (h): sc-76525-SH, SMPDL3B shRNA Plasmid (m): sc-76526-SH, SMPDL3B shRNA (h) Lentiviral Particles: sc-76525-V and SMPDL3B shRNA (m) Lentiviral Particles: sc-76526-V.

Molecular Weight of SMPDL3B: 51 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



SMPDL3B (H-76): sc-68845. Western blot analysis of SMPDL3B expression in non-transfected: sc-117752 (**A**) and mouse SMPDL3B transfected: sc-126022 (**B**) 293T whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.