SANTA CRUZ BIOTECHNOLOGY, INC.

LYSMD1 (G-3): sc-514030

BACKGROUND

LYSMD1 (LysM and putative peptidoglycan-binding domain-containing protein 1), also known as SB145, is a 227 amino acid protein that contains one LysM repeat and exists as two alternatively spliced isoforms. The gene encoding LYSMD1 maps to human chromosome 1, which spans about 260 million base pairs and comprises 8% of the human genome. There are about 3,000 genes on chromosome 1, and considering the great number of genes there are also a large number of diseases associated with chromosome 1. Notably, the rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene which encodes Lamin A. The MUTYH gene is located on chromosome 1 and is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1. A breakpoint has been identified in 1q which disrupts the DISC1 gene and is linked to schizophrenia. Aberrations in chromosome 1 are found in a variety of cancers including head and neck cancer, malignant melanoma and multiple myeloma.

CHROMOSOMAL LOCATION

Genetic locus: LYSMD1 (human) mapping to 1q21.3; Lysmd1 (mouse) mapping to 3 F2.1.

SOURCE

LYSMD1 (G-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 205-223 at the C-terminus of LYSMD1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LYSMD1 (G-3) is available conjugated to agarose (sc-514030 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514030 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514030 PE), fluorescein (sc-514030 FITC), Alexa Fluor® 488 (sc-514030 AF488), Alexa Fluor® 546 (sc-514030 AF546), Alexa Fluor® 594 (sc-514030 AF594) or Alexa Fluor® 647 (sc-514030 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514030 AF680) or Alexa Fluor® 790 (sc-514030 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514030 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

LYSMD1 (G-3) is recommended for detection of LYSMD1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 LYSMD1 siRNA (h): sc-88211, LYSMD1 siRNA (m): sc-149189, LYSMD1 shRNA Plasmid (h): sc-88211-SH, LYSMD1 shRNA Plasmid (m): sc-149189-SH, LYSMD1 shRNA (h) Lentiviral Particles: sc-88211-V and LYSMD1 shRNA (m) Lentiviral Particles: sc-149189-V.

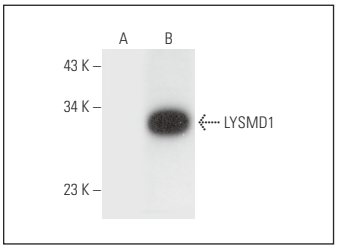
Molecular Weight of LYSMD1: 25 kDa.

Positive Controls: LYSMD1 (m): 293T Lysate: sc-121454 or LYSMD1 (h): 293T Lysate: sc-117177.

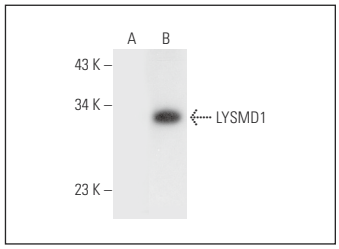
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



LYSMD1 (G-3): sc-514030. Western blot analysis of LYSMD1 expression in non-transfected: sc-117752 (**A**) and human LYSMD1 transfected: sc-117177 (**B**) 293T whole cell lysates.



LYSMD1 (G-3): sc-514030. Western blot analysis of LYSMD1 expression in non-transfected: sc-117752 (**A**) and LYSMD1 mouse transfected: sc-121454 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Audshasai, T., et al. 2022. *Streptococcus pneumoniae* rapidly translocate from the nasopharynx through the cribriform plate to invade the outer meninges. mBio 13: e0102422.

RESEARCH USE

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