

# LYSMD1 (G-11): sc-514282

## 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 2 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.

## REFERENCES

1. Watson, M.L., et al. 1990. Genomic organization of the selectin family of leukocyte adhesion molecules on human and mouse chromosome 1. *J. Exp. Med.* 172: 263-272.
2. Blackwood, D.H., et al. 2001. Schizophrenia and affective disorders— cosegregation with a translocation at chromosome 1q42 that directly disrupts brain-expressed genes: clinical and P300 findings in a family. *Am. J. Hum. Genet.* 69: 428-433.
3. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.
4. Lans, H. and Hoeijmakers, J.H. 2006. Cell biology: aging nucleus gets out of shape. *Nature* 440: 32-34.
5. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
6. Hennah, W., et al. 2006. Genes and schizophrenia: beyond schizophrenia: the role of DISC1 in major mental illness. *Schizophr. Bull.* 32: 409-416.

## CHROMOSOMAL LOCATION

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

## SOURCE

LYSMD1 (G-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 207-223 at the C-terminus of LYSMD1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-514282 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

LYSMD1 (G-11) 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.

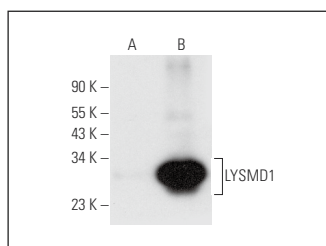
Molecular Weight of LYSMD1: 25 kDa.

Positive Controls: LYSMD1 (h): 293T Lysate: sc-117177, HeLa whole cell lysate: sc-2200 or RAW 264.7 whole cell lysate: sc-2211.

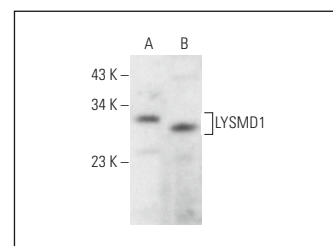
## RECOMMENDED SUPPORT REAGENTS

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-11): sc-514282. 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-11): sc-514282. Western blot analysis of LYSMD1 expression in HeLa (A) and RAW 264.7 (B) 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.