

# SCYL3 (G-9): sc-393945

## BACKGROUND

SCYL3 (SCY1-like 3), also known as protein-associating with the carboxyl-terminal domain of Ezrin, is a 742 amino acid protein that belongs to the protein kinase superfamily. The SCYL3 protein contains an N-terminal myristoylation consensus sequence, followed by a protein kinase domain, two tandemly arrayed HEAT motifs composed of pairs of antiparallel  $\alpha$  helices, and a C-terminal Ezrin-binding domain. The SCYL3 protein may be phosphorylated. Ubiquitously expressed, the SCYL3 protein colocalizes with Ezrin, Actin and HCAP in lamellipodia. The SCYL3 protein may be myristoylated, which may target SCYL3 to Golgi compartment. Existing as 2 alternatively spliced isoforms, the SCYL3 gene contains 14 exons, is conserved in chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish, fruit fly and mosquito, and maps to human chromosome 1q24.2.

## REFERENCES

1. Sullivan, A., et al. 2003. PACE-1, a novel protein that interacts with the C-terminal domain of Ezrin. *Exp. Cell Res.* 284: 224-238.
2. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 608192. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Maurer-Stroh, S., et al. 2004. MYRbase: analysis of genome-wide glycine myristoylation enlarges the functional spectrum of eukaryotic myristoylated proteins. *Genome Biol.* 5: R21.
4. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.
5. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
6. Cheung, C.L., et al. 2009. Pre-B-cell leukemia homeobox 1 (PBX1) shows functional and possible genetic association with bone mineral density variation. *Hum. Mol. Genet.* 18: 679-687.
7. Traynor, B.J., et al. 2010. Kinesin-associated protein 3 (KIFAP3) has no effect on survival in a population-based cohort of ALS patients. *Proc. Natl. Acad. Sci. USA* 107: 12335-12338.

## CHROMOSOMAL LOCATION

Genetic locus: SCYL3 (human) mapping to 1q24.2; Scyl3 (mouse) mapping to 1 H2.2.

## SOURCE

SCYL3 (G-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 70-96 near the N-terminus of SCYL3 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</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-393945 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

SCYL3 (G-9) is recommended for detection of SCYL3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

SCYL3 (G-9) is also recommended for detection of SCYL3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SCYL3 siRNA (h): sc-88316, SCYL3 siRNA (m): sc-153280, SCYL3 shRNA Plasmid (h): sc-88316-SH, SCYL3 shRNA Plasmid (m): sc-153280-SH, SCYL3 shRNA (h) Lentiviral Particles: sc-88316-V and SCYL3 shRNA (m) Lentiviral Particles: sc-153280-V.

Molecular Weight of SCYL3 isoforms 1/2: 83/77 kDa.

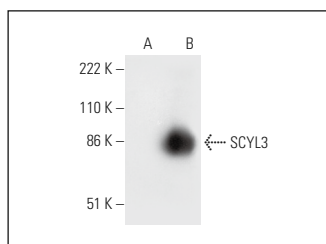
Positive Controls: SCYL3 (m): 293T Lysate: sc-123396 or 3T3-L1 cell lysate: sc-2243.

## RECOMMENDED SUPPORT REAGENTS

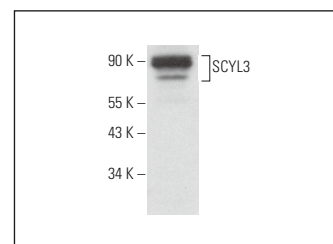
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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



SCYL3 (G-9): sc-393945. Western blot analysis of SCYL3 expression in non-transfected: sc-117752 (A) and mouse SCYL3 transfected: sc-123396 (B) 293T whole cell lysates.



SCYL3 (G-9): sc-393945. Western blot analysis of SCYL3 expression in 3T3-L1 whole cell lysate.

## 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.