

AMIGO1 (H-4): sc-374418

BACKGROUND

The amphoterin-induced gene and ORF (AMIGO) family of proteins consists of AMIGO-1, AMIGO-2 and AMIGO-3. All three members are single pass type I membrane proteins that contain several leucine-rich repeats, one IgG domain, and a transmembrane domain. The AMIGO proteins are specifically expressed on fiber tracts of neuronal tissues and participate in their formation. The AMIGO proteins can form complexes with each other, but can also bind itself. AMIGO-1, also designated Alivin-2, promotes growth and fasciculation of neurites and plays a role in myelination and fasciculation of developing neural axons. In cerebellar neurons, AMIGO-2 (Alivin-1) is crucial for depolarization-dependent survival. Similar to AMIGO-1 and AMIGO-2, AMIGO-3 (Alivin-3) plays a role in homophilic and/or heterophilic cell-cell interaction and signal transduction.

REFERENCES

1. Kuja-Panula, J., et al. 2003. AMIGO, a transmembrane protein implicated in axon tract development, defines a novel protein family with leucine-rich repeats. *J. Cell Biol.* 160: 963-973.
2. Clark, H.F., et al. 2003. The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: a bioinformatics assessment. *Genome Res.* 13: 2265-2270.
3. Ono, T., et al. 2003. Alivin 1, a novel neuronal activity-dependent gene, inhibits apoptosis and promotes survival of cerebellar granule neurons. *J. Neurosci.* 23: 5887-5896.
4. Chen, Y., et al. 2006. AMIGO and friends: an emerging type I transmembrane proteins with leucine-rich repeats (LRR) and cell adhesion molecule motifs. *Brain Res. Rev.* 51: 265-274.

CHROMOSOMAL LOCATION

Genetic locus: AMIGO1 (human) mapping to 1p13.3.

SOURCE

AMIGO1 (H-4) is a mouse monoclonal antibody raised against amino acids 269-387 mapping within an internal region of AMIGO1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

AMIGO1 (H-4) is available conjugated to agarose (sc-374418 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374418 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374418 PE), fluorescein (sc-374418 FITC), Alexa Fluor® 488 (sc-374418 AF488), Alexa Fluor® 546 (sc-374418 AF546), Alexa Fluor® 594 (sc-374418 AF594) or Alexa Fluor® 647 (sc-374418 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374418 AF680) or Alexa Fluor® 790 (sc-374418 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

AMIGO1 (H-4) is recommended for detection of AMIGO1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immuno-precipitation [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), immunohistochemistry (including paraffin-embedded sections) (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 AMIGO1 siRNA (h): sc-60162, AMIGO1 shRNA Plasmid (h): sc-60162-SH and AMIGO1 shRNA (h) Lentiviral Particles: sc-60162-V.

Molecular Weight of AMIGO1: 55 kDa.

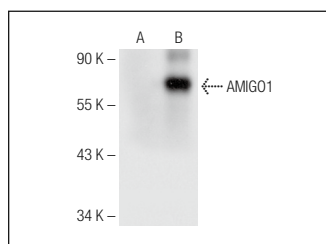
Positive Controls: AMIGO1 (h): 293T Lysate: sc-115922.

RECOMMENDED SUPPORT REAGENTS

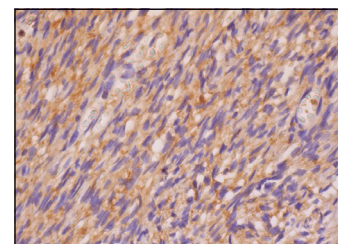
To ensure optimal results, the following support reagents are recommended:

- 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.
- 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



AMIGO1 (H-4): sc-374418. Western blot analysis of AMIGO1 expression in non-transfected: sc-117752 (A) and human AMIGO1 transfected: sc-115922 (B) 293T whole cell lysates.



AMIGO1 (H-4): sc-374418. Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing cytoplasmic staining of ovarian stroma cells.

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.