

AMIGO2 (N-12): sc-46761

BACKGROUND

The amphoterin-induced gene and ORF (AMIGO) family of proteins consists of AMIGO1, AMIGO2 and AMIGO3. 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. AMIGO proteins can form complexes with each other, but can also bind themselves. AMIGO1, 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, AMIGO2 (Alivin 1) is crucial for depolarization-dependent survival. Similar to AMIGO1 and AMIGO2, AMIGO3 (Alivin 3) plays a role in homophilic and/or heterophilic cell-cell interaction and signal transduction.

REFERENCES

1. Kuja-Panula, J., Kiiltomaki, M., Yamashiro, T., Rouhiainen, A. and Rauvala, H. 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., Gurney, A.L., Abaya, E., Baker, K., Baldwin, D., Brush, J., Chen, J., Chow, B., Chui, C., Crowley, C., Currell, B., Deuel, B., Dowd, P., Eaton, D., Foster, J., Grimaldi, C., Gu, Q., Hass, P.E., Heldens, S., 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., Sekino-Suzuki, N., Kikkawa, Y., Yonekawa, H. and Kawashima, S. 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., Aulia, S., Li, L. and Tang, B.L. 2006. AMIGO and friends: An emerging family of brain-enriched, neuronal growth modulating, type I transmembrane proteins with leucine-rich repeats (LRR) and cell adhesion molecule motifs. *Brain Res. Brain Res. Rev.* 51: 265-274.

CHROMOSOMAL LOCATION

Genetic locus: AMIGO2 (human) mapping to 12q13.11; Amigo2 (mouse) mapping to 15 F1.

SOURCE

AMIGO2 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of AMIGO2 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.

Blocking peptide available for competition studies, sc-46761 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

AMIGO2 (N-12) is recommended for detection of AMIGO2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

AMIGO2 (N-12) is also recommended for detection of AMIGO2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for AMIGO2 siRNA (h): sc-60164, AMIGO2 siRNA (m): sc-60165, AMIGO2 shRNA Plasmid (h): sc-60164-SH, AMIGO2 shRNA Plasmid (m): sc-60165-SH, AMIGO2 shRNA (h) Lentiviral Particles: sc-60164-V and AMIGO2 shRNA (m) Lentiviral Particles: sc-60165-V.

Molecular Weight of AMIGO2: 66 kDa.

Positive Controls: Y79 cell lysate: sc-2240.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.