

# AMIGO1 Antibody

Catalog # ASC11725

## Product Information

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|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application           | WB, IF, E, IHC-P                                                                                                                                                                                                     |
| Primary Accession     | <a href="#">Q86WK6</a>                                                                                                                                                                                               |
| Other Accession       | <a href="#">NP_065754</a> , <a href="#">153791466</a>                                                                                                                                                                |
| Reactivity            | Human, Mouse, Rat                                                                                                                                                                                                    |
| Host                  | Rabbit                                                                                                                                                                                                               |
| Clonality             | Polyclonal                                                                                                                                                                                                           |
| Isotype               | IgG                                                                                                                                                                                                                  |
| Calculated MW         | 55239                                                                                                                                                                                                                |
| Concentration (mg/ml) | 1 mg/mL                                                                                                                                                                                                              |
| Conjugate             | Unconjugated                                                                                                                                                                                                         |
| Application Notes     | AMIGO1 antibody can be used for detection of AMIGO1 by Western blot at 1 - 2 $\mu$ g/ml. Antibody can also be used for Immunohistochemistry starting at 5 $\mu$ g/mL. For immunofluorescence start at 20 $\mu$ g/mL. |

## Additional Information

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|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Gene ID                  | 57463                                                                                                                             |
| Other Names              | Amphoterin-induced protein 1, AMIGO-1, Alivin-2, AMIGO1 ( <a href="#">HGNC:20824</a> )                                            |
| Target/Specificity       | AMIGO1; AMIGO1 antibody is human, mouse, and rat reactive. AMIGO1 antibody is predicted to not cross-react with AMIGO2 or AMIGO3. |
| Reconstitution & Storage | AMIGO1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.                                       |
| Precautions              | AMIGO1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.                                 |

## Protein Information

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| Name              | AMIGO1 ( <a href="#">HGNC:20824</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Function          | Promotes growth and fasciculation of neurites from cultured hippocampal neurons. May be involved in fasciculation as well as myelination of developing neural axons. May have a role in regeneration as well as neural plasticity in the adult nervous system. May mediate homophilic as well as heterophilic cell-cell interaction and contribute to signal transduction through its intracellular domain. Assembled with KCNB1 modulates the gating characteristics of the delayed rectifier voltage-dependent potassium channel KCNB1. |
| Cellular Location | Cell membrane {ECO:0000250 UniProtKB:Q80ZD8}; Single-pass type I membrane protein {ECO:0000250 UniProtKB:Q80ZD8} Perikaryon                                                                                                                                                                                                                                                                                                                                                                                                               |

{ECO:0000250|UniProtKB:Q80ZD8}. Cell projection, dendrite  
{ECO:0000250|UniProtKB:Q80ZD8}. Cell projection, axon  
{ECO:0000250|UniProtKB:Q80ZD7}. Note=Colocalizes with KCNB1 at high-density somatodendritic clusters on the surface of hippocampal and cortical neurons. Associated with axons of neuronal cells  
{ECO:0000250|UniProtKB:Q80ZD7, ECO:0000250|UniProtKB:Q80ZD8}

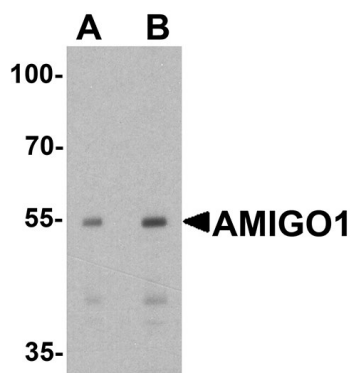
## Background

The amphoterin-induced gene and ORF (AMIGO1) protein is a brain-enriched, glycosylated transmembrane immunoglobulin (Ig) superfamily protein with six extracellular leucine-rich repeats (LRRs) and one Ig-like domain. It and the related proteins AMIGO2 and AMIGO3 are thought to be cell adhesion molecules expressed on fiber tracts of neuronal tissues and participate in their formation (1). AMIGO1 has also been suggested to play important roles in dendritic outgrowth during development and could modulate the survival of developing and adult neurons (2).

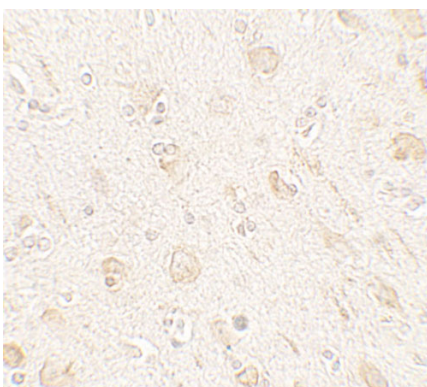
## References

Kuja-Panula J, Kiiltomaki M, Yamashiro T, et al. AMIGO, a transmembrane protein implicated in axon tract development, defines a novel protein family with leucine-rich repeats. *J. Cell Biol.* 2003; 160:963-73.  
Chen Y, Hor HH, and Tang BL. AMIGO is expressed in multiple brain cell types and may regulate dendritic growth and neuronal survival. *J. Cell Physiol.* 2012; 227:2217-29.

## Images

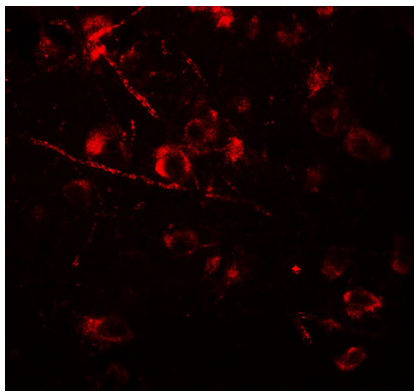


Western blot analysis of AMIGO1 in HeLa cell lysate with AMIGO1 antibody at (A) 1 and (B) 2  $\mu\text{g/ml}$ .



Immunohistochemistry of AMIGO1 in human brain tissue with AMIGO1 antibody at 5  $\mu\text{g/mL}$ .

Immunofluorescence of AMIGO1 in human brain tissue with AMIGO1 antibody at 20  $\mu\text{g/mL}$ .



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