SANTA CRUZ BIOTECHNOLOGY, INC.

ABLIM3 (G-12): sc-104793



BACKGROUND

The *C. elegans* protein UNC-115 mediates axon guidance by modulating the growth cone Actin cytoskeleton in response to signals received by growth cone receptors. The mammalian homolog of UNC-115 is the Actin-binding LIM protein family member 1 (ABLIM1, also designated Limatin). The ABLIM1 protein has an N-terminal domain that contains four double zinc finger motifs, which conform to the LIM motif consensus sequence. ABLIM1 binds to F-Actin through a dematin-like domain and is expressed in retina, brain and muscle tissue. There are four known isoforms of ABLIM1. The gene encoding ABLIM1 maps to a region of chromosome 10 associated with frequent loss of hetero-zygosity in human tumors, thus identifying ABLIM1 as a candidate tumor suppressor gene. ABLIM2 and ABLIM3 show highest expression in muscle and neuronal tissues, bind to F-Actin, and are localized on stress fibers. They also have been shown to enhance STARS (striated muscle activator of Rho signaling) dependent activation of serum-response factor (SRF), thereby modulating transcription.

REFERENCES

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- 2. Roof, D.J., et al. 1997. Molecular characterization of ABLIM, a novel Actin-binding and double zinc finger protein. J. Cell Biol. 138: 575-588.
- 3. Lundquist, E.A., et al. 1998. UNC-115, a conserved protein with predicted LIM and Actin-binding domains, mediates axon guidance in *C. elegans*. Neuron 21: 385-392.
- 4. Lu, C., et al. 2003. Normal retinal development and retinofugal projections in mice lacking the retina-specific variant of Actin-binding LIM domain protein. Neuroscience 120: 121-131.
- Yang, Y. and Lundquist, E.A. 2005. The Actin-binding protein UNC-115/ ABLIM controls formation of lamellipodia and filopodia and neuronal morphogenesis in *Caenorhabditis elegans*. Mol. Cell. Biol. 25: 5158-5170.
- 6. Barrientos, T., et al. 2007. Two novel members of the ABLIM protein family, ABLIM2 and 3, associate with STARS and directly bind F-Actin. J. Biol. Chem. 282: 8393-8403.

CHROMOSOMAL LOCATION

Genetic locus: ABLIM3 (human) mapping to 5q32; Ablim3 (mouse) mapping to 18 E1.

SOURCE

ABLIM3 (G-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ABLIM3 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-104793 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ABLIM3 (G-12) is recommended for detection of ABLIM3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

Suitable for use as control antibody for ABLIM3 siRNA (h): sc-91615, ABLIM3 siRNA (m): sc-140781, ABLIM3 shRNA Plasmid (h): sc-91615-SH, ABLIM3 shRNA Plasmid (m): sc-140781-SH, ABLIM3 shRNA (h) Lentiviral Particles: sc-91615-V and ABLIM3 shRNA (m) Lentiviral Particles: sc-140781-V.

Molecular Weight of ABLIM3: 78 kDa.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.



ABLIM3 (G-12): sc-104793. Western blot analysis of ABLIM3 expression in 293T 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.

MONOS Try Satisfation mc Guaranteed

Try **ABLIM3 (C-2): sc-398575**, our highly recommended monoclonal alternative to ABLIM3 (G-12).