

AIDA (7F6): sc-81869

BACKGROUND

AIDA (Axin interactor, dorsalization associated protein), also known as C1orf80, is a 306 amino acid protein that belongs to the axin interactor family. Expressed in a variety of tissues, including skeletal muscle and heart, AIDA functions as a ventralizing factor during embryogenesis, disrupting Axin homodimerization and inhibiting Axin-mediated JNK activation. Axin, a scaffold protein, is important for both JNK signaling and the canonical Wnt pathway, two processes that play an essential role in embryonic dorsoventral patterning. Disruption of Axin by AIDA results in the negative regulation of JNK and Wnt signaling, thereby affecting embryonic developmental events. Three isoforms of AIDA exist due to alternative splicing events.

REFERENCES

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- Zhang, Y., et al. 1999. Axin forms a complex with MEK1 and activates c-Jun NH₂-terminal kinase/stress-activated protein kinase through domains distinct from Wnt signaling. *J. Biol. Chem.* 274: 35247-35254.
- Kimura, K., et al. 2006. Diversification of transcriptional modulation: large-scale identification and characterization of putative alternative promoters of human genes. *Genome Res.* 16: 55-65.
- Deng, F., et al. 2006. Stargazin and other transmembrane AMPA receptor regulating proteins interact with synaptic scaffolding protein MAGI-2 in brain. *J. Neurosci.* 26: 7875-7884.
- Rui, Y., et al. 2007. A β -catenin-independent dorsalization pathway activated by Axin/JNK signaling and antagonized by AIDA. *Dev. Cell* 13: 268-282.
- Lu, Z., et al. 2008. Protein encoded by the Axin(Fu) allele effectively downregulates Wnt signaling but exerts a dominant negative effect on c-Jun N-terminal kinase signaling. *J. Biol. Chem.* 283: 13132-13139.

CHROMOSOMAL LOCATION

Genetic locus: AIDA (human) mapping to 1q41; Aida (mouse) mapping to 1.

SOURCE

AIDA (7F6) is a mouse monoclonal antibody raised against recombinant AIDA of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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.

APPLICATIONS

AIDA (7F6) is recommended for detection of AIDA 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 AIDA siRNA (h): sc-88746, AIDA shRNA Plasmid (h): sc-88746-SH and AIDA shRNA (h) Lentiviral Particles: sc-88746-V.

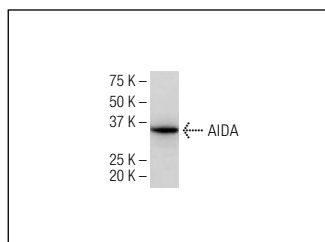
Molecular Weight of AIDA: 35 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

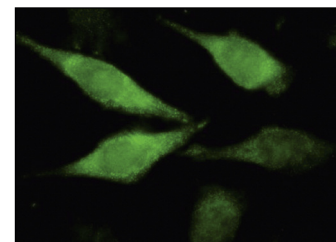
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



AIDA (7F6): sc-81869. Western blot analysis of AIDA expression in HeLa whole cell lysate.



AIDA (7F6): sc-81869. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing membrane and cytoplasmic localization.

RESEARCH USE

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