

AIDA-1 (C-10): sc-376610

BACKGROUND

The β -Amyloid protein precursor (A β PP) is a widely expressed transmembrane protein that is processed into the β -Amyloid (A β) peptide, which accumulates in insoluble plaques in the brain of Alzheimer's disease patients and A β PP intracellular domain (AID). AID may function as a pro-apoptotic peptide, a regulator of calcium homeostasis and a molecule involved in transcriptional regulation. The AID associated protein 1 (AIDA-1) is highly expressed in the brain and is regulated by A β PP. It interacts with A β PP to play a role in brain development. AIDA-1 also interacts with coilin in Cajal bodies to regulate pre-mRNA splicing.

REFERENCES

1. Fu, X., et al. 1999. EB-1, a tyrosine kinase signal transduction gene, is transcriptionally activated in the t(1;19) subset of pre-B ALL, which express oncoprotein E2a-Pbx1. *Oncogene* 18: 4920-4929.
2. Wiemels, J.L., et al. 2002. Related site-specific translocation and evidence of postnatal origin of the t(1;19) E2A-PBX1 fusion in childhood acute lymphoblastic leukemia. *Proc. Natl. Acad. Sci. USA* 99: 15101-15106.
3. Petersen, H.H., et al. 2003. Functional interaction of megalin with the megalin-binding protein (MegBP), a novel tetratricopeptide repeat-containing adaptor molecule. *J. Cell Sci.* 116: 453-461.
4. LeBrun, D.P. 2003. E2A basic helix-loop-helix transcription factors in human leukemia. *Front. Biosci.* 8: s206-s222.

CHROMOSOMAL LOCATION

Genetic locus: ANKS1B (human) mapping to 12q23.1.

SOURCE

AIDA-1 (C-10) is a mouse monoclonal antibody raised against amino acids 847-1054 mapping near the C-terminus of AIDA-1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

AIDA-1 (C-10) is available conjugated to agarose (sc-376610 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376610 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376610 PE), fluorescein (sc-376610 FITC), Alexa Fluor[®] 488 (sc-376610 AF488), Alexa Fluor[®] 546 (sc-376610 AF546), Alexa Fluor[®] 594 (sc-376610 AF594) or Alexa Fluor[®] 647 (sc-376610 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-376610 AF680) or Alexa Fluor[®] 790 (sc-376610 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

AIDA-1 (C-10) is recommended for detection of AIDA-1 of human origin by Western Blotting (starting dilution 1:100, 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).

AIDA-1 (C-10) is also recommended for detection of AIDA-1 in additional species, including equine and canine.

Suitable for use as control antibody for AIDA-1 siRNA (h): sc-60141, AIDA-1 shRNA Plasmid (h): sc-60141-SH and AIDA-1 shRNA (h) Lentiviral Particles: sc-60141-V.

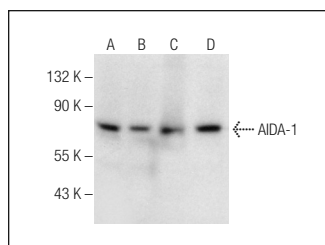
Molecular Weight of eight AIDA-1 isoforms: 40-58/85/138 kDa.

Positive Controls: LNCaP cell lysate: sc-2231, U-87 MG cell lysate: sc-2411 or SK-N-MC cell lysate: sc-2237.

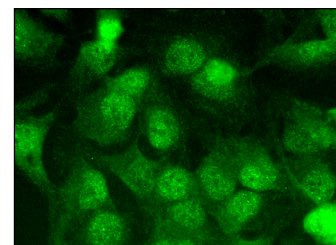
RECOMMENDED SUPPORT REAGENTS

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, 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-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-1 (C-10): sc-376610. Western blot analysis of AIDA-1 expression in LNCaP (A), U-87 MG (B), NCI-H929 (C) and SK-N-MC (D) whole cell lysates.



AIDA-1 (C-10): sc-376610. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear and membrane localization.

SELECT PRODUCT CITATIONS

1. Enga, R.M., et al. 2017. Initial characterization of behavior and ketamine response in a mouse knockout of the post-synaptic effector gene Anks1b. *Neurosci. Lett.* 641: 26-32.
2. Carbonell, A.U., et al. 2019. Haploinsufficiency in the ANKS1B gene encoding AIDA-1 leads to a neurodevelopmental syndrome. *Nat. Commun.* 10: 3529.

RESEARCH USE

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