SANTA CRUZ BIOTECHNOLOGY, INC.

ASPHD2 (D-1): sc-393067

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ASPHD2 (aspartate β-hydroxylase domain containing 2) is a 369 amino acid single-pass type II membrane protein belonging to the aspartyl/asparaginyl β-hydroxylase family. ASPHD2 is encoded by a gene mapping to human chromosome 22q12.1 and mouse chromosome 5 F. Human chromosome 22 houses over 500 genes and is the second smallest human chromosome. Mutations in several of the genes that map to chromosome 22 are involved in the development of Phelan-McDermid syndrome, Neurofibromatosis type 2, autism and schizophrenia. Additionally, translocations between chromosomes 9 and 22 may lead to the formation of the Philadelphia Chromosome and the subsequent production of the novel fusion protein Bcr-Abl, a potent cell proliferation activator found in several types of leukemias.

REFERENCES

1. Briegel, W. and Cohen, M. 2004. Chromosome 22q11 deletion syndrome and its relevance for child and adolescent psychiatry. An overview of etiology, physical symptoms, aspects of child development and psychiatric disorders. Z. Kinder Jugendpsychiatr. Psychother. 32: 107-115.
2. Gothelf, D., et al. 2008. Genes, brain development and psychiatric phenotypes in velo-cardio-facial syndrome. Dev. Disabil. Res. Rev. 14: 59-68.
3. Sathyamoorthi, S., et al. 2009. Array analysis and molecular studies of INI1 in an infant with deletion 22q13 (Phelan-McDermid syndrome) and atypical teratoid/rhabdoid tumor. Am. J. Med. Genet. A 149A: 1067-1069.
4. Vorstman, J.A., et al. 2009. Association of the PIK4CA schizophrenia-susceptibility gene in adults with the 22q11.2 deletion syndrome. Am. J. Med. Genet. B Neuropsychiatr. Genet. 150B: 430-433.
5. Bennour, A., et al. 2009. Molecular cytogenetic characterization of variant Philadelphia translocations in chronic myeloid leukemia: genesis and deletion of derivative chromosome 9. Cancer Genet. Cytogenet. 194: 30-37.
6. Evans, D.G. 2009. Neurofibromatosis 2 [bilateral acoustic neurofibromatosis, central neurofibromatosis, NF2, neurofibromatosis type II]. Genet. Med. 11: 599-610.

CHROMOSOMAL LOCATION

Genetic locus: ASPHD2 (human) mapping to 22q12.1; Asphd2 (mouse) mapping to 5 F.

SOURCE

ASPHD2 (D-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 121-132 within an internal region of ASPHD2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393067 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

ASPHD2 (D-1) is recommended for detection of ASPHD2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

ASPHD2 (D-1) is also recommended for detection of ASPHD2 in additional species, including equine.

Suitable for use as control antibody for ASPHD2 siRNA (h): sc-72567, ASPHD2 siRNA (m): sc-141306, ASPHD2 shRNA Plasmid (h): sc-72567-SH, ASPHD2 shRNA Plasmid (m): sc-141306-SH, ASPHD2 shRNA (h) Lentiviral Particles: sc-72567-V and ASPHD2 shRNA (m) Lentiviral Particles: sc-141306-V.

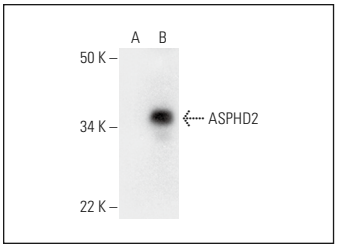
Molecular Weight of ASPHD2: 42 kDa.

Positive Controls: ASPHD2 (h): 293T Lysate: sc-115022.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



ASPHD2 (D-1): sc-393067. Western blot analysis of ASPHD2 expression in non-transfected: sc-117752 (**A**) and human ASPHD2 transfected: sc-115022 (**B**) 293T whole cell lysates.

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.