

# ASPHD2 (E-15): sc-86074

## BACKGROUND

ASPHD2 (aspartate  $\beta$ -hydroxylase domain containing 2) is a 369 amino acid single-pass type II membrane protein belonging to the aspartyl/asparaginyl  $\beta$ -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., Schaer, M. and Eliez, S. 2008. Genes, brain development and psychiatric phenotypes in velo-cardio-facial syndrome. *Dev. Disabil. Res. Rev.* 14: 59-68.
3. Sathyamoorthi, S., Morales, J., Bermudez, J., McBride, L., Luquette, M., McGoey, R., Oates, N., Hales, S., Biegel, J.A. and Lacassie, Y. 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., Chow, E.W., Ophoff, R.A., van Engeland, H., Beemer, F.A., Kahn, R.S., Sinke, R.J. and Bassett, A.S. 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., Sennana, H., Laatiri, M.A., Elloumi, M., Khelif, A. and Saad, A. 2009. Molecular cytogenetic characterization of variant Philadelphia translocations in chronic myeloid leukemia: genesis and deletion of deriv-ative 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.
7. Ravandi, F. and Kebriaei, P. 2009. Philadelphia chromosome-positive acute lymphoblastic leukemia. *Hematol. Oncol. Clin. North Am.* 23: 1043-1063.

## CHROMOSOMAL LOCATION

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

## SOURCE

ASPHD2 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ASPHD2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86074 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ASPHD2 (E-15) is recommended for detection of ASPHD2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (E-15) is also recommended for detection of ASPHD2 in additional species, including porcine.

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.

## 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) 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.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **ASPHD2 (E-9): sc-390986** or **ASPHD2 (D-1): sc-393067**, our highly recommended monoclonal alternatives to ASPHD2 (E-15).