

CHD5 (M-182): sc-68389

BACKGROUND

Chromodomain helicase DNA binding protein 5, also known as CHD5, is a member of the SNF2/RAD54 helicase family of chromatin remodeling and DNA-binding proteins (CDH proteins). Heavily expressed in both fetal and adult brain, CHD5 plays a role in nervous system development and acts as a tumor suppressor via the Arf/p53 pathway. CHD5, along with other chromodomain proteins, forms remodeling complexes, such as NuRD, that promote normal neuroblast maturation and are thought to prevent overexpression of neuronal cells. Errors in these chromatin remodeling complexes can leave the cell in a perpetual state of growth, preventing differentiation and leading to tumor formation. Due to the importance of the CHD proteins in proper brain development, deletions in the gene encoding CHD5 are commonly found in neuroblastomas, suggesting that CHD5 deficiency may lead to malignant cell transformation and metastasis.

REFERENCES

- Schuster, E.F. and Stöger, R. 2002. CHD5 defines a new subfamily of chromodomain-SWI2/SNF2-like helicases. *Mamm. Genome* 13: 117-119.
- Thompson, P.M., Gotoh, T., Kok, M., White, P.S. and Brodeur, G.M. 2003. CHD5, a new member of the chromodomain gene family, is preferentially expressed in the nervous system. *Oncogene* 22: 1002-1011.

CHROMOSOMAL LOCATION

Genetic locus: CHD5 (human) mapping to 1p36.31; Chd5 (mouse) mapping to 4 E2.

SOURCE

CHD5 (M-182) is a rabbit polyclonal antibody raised against amino acids 1524-1705 mapping within an internal region of CHD5 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-68389 X, 200 µg/0.1 ml.

APPLICATIONS

CHD5 (M-182) is recommended for detection of CHD5 of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, 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).

Suitable for use as control antibody for CHD5 siRNA (h): sc-62102, CHD5 siRNA (m): sc-62103, CHD5 shRNA Plasmid (h): sc-62102-SH, CHD5 shRNA Plasmid (m): sc-62103-SH, CHD5 shRNA (h) Lentiviral Particles: sc-62102-V and CHD5 shRNA (m) Lentiviral Particles: sc-62103-V.

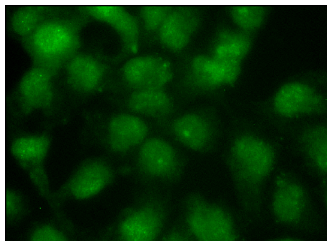
CHD5 (M-182) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of CHD5: 223 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CHD5 (M-182): sc-68389. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear localization. Kindly provided by Yang Xiang, Ph.D., Division of Newborn Medicine, Boston Children's Hospital, Cell Biology Department, Harvard Medical School.

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 or our catalog for detailed protocols and support products.



Try **CHD5 (D-10): sc-271248**, our highly recommended monoclonal alternative to CHD5 (M-182).