

CHD5 (D-10): sc-271248

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 chromo-domain 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.

CHROMOSOMAL LOCATION

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

SOURCE

CHD5 (D-10) is a mouse monoclonal antibody raised against amino acids 1521-1705 mapping within an internal region of CHD5 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain 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-271248 X, 200 µg/0.1 ml.

CHD5 (D-10) is available conjugated to agarose (sc-271248 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271248 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271248 PE), fluorescein (sc-271248 FITC), Alexa Fluor® 488 (sc-271248 AF488), Alexa Fluor® 546 (sc-271248 AF546), Alexa Fluor® 594 (sc-271248 AF594) or Alexa Fluor® 647 (sc-271248 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271248 AF680) or Alexa Fluor® 790 (sc-271248 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

CHD5 (D-10) is recommended for detection of CHD5 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).

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.

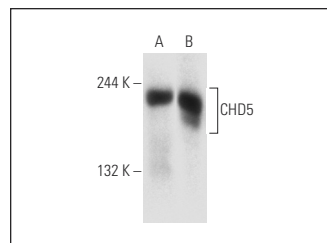
CHD5 (D-10) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of CHD5: 223 kDa.

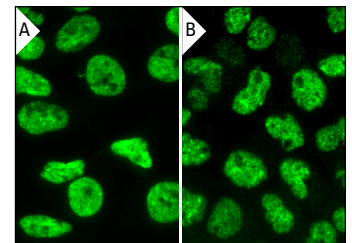
RECOMMENDED SUPPORT REAGENTS

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



CHD5 (D-10): sc-271248. Western blot analysis of CHD5 expression in mouse brain (A) and mouse cerebellum (B) tissue extracts.



CHD5 (D-10): sc-271248. Immunofluorescence staining of formalin-fixed Hep G2 (A) and A-431 (B) cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Quan, J., et al. 2014. The chromatin remodeling factor CHD5 is a transcriptional repressor of WEE1. *PLoS ONE* 9: e108066.
2. Marcos-Villar, L., et al. 2016. Influenza virus and chromatin: role of the CHD1 chromatin remodeler in the virus life cycle. *J. Virol.* 90: 3694-3707.
3. Hashimoto, T., et al. 2020. Clinical significance of chromatin remodeling factor CHD5 expression in gastric cancer. *Oncol. Lett.* 19: 1066-1073.

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 for detailed protocols and support products.

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