

CHD6 (A-5): sc-393421

BACKGROUND

CHD6 (chromodomain-helicase-DNA-binding protein 6, radiation-induced gene B protein) is a 2,715 amino acid protein encoded by the human gene CHD6. CHD6 belongs to the Snf2/Rad54 helicase family and contains two chromodomains, one ATP-binding helicase domain and one C-terminal helicase domain. The CHD family of proteins are ATP-dependent chromatin remodeling enzymes which combine chromodomains with SWI2/Snf2 ATPase/helicase motifs and DNA-binding capability. Chromodomains are protein regions of about 40-50 amino acid residues found in proteins associated with chromatin remodeling and manipulation. The domain is highly conserved among both plants and animals and is found in a large variety of proteins from many genomes.

REFERENCES

1. Jones, D.O., et al. 2000. Mammalian chromodomain proteins: their role in genome organisation and expression. *Bioessays* 22: 124-137.
2. Tajul-Arifin, K., et al. 2003. Identification and analysis of chromo-domain-containing proteins encoded in the mouse transcriptome. *Genome Res.* 13: 1416-1429.
3. Olsen, J.V., et al. 2006. Global, *in vivo*, and site-specific phosphorylation dynamics in signaling networks. *Cell* 127: 635-648.
4. Lutz, T., et al. 2006. CHD6 is a DNA-dependent ATPase and localizes at nuclear sites of mRNA synthesis. *FEBS Lett.* 580: 5851-5857.
5. Wang, H.P., et al. 2006. Identification of differentially transcribed genes in human lymphoblastoid cells irradiated with 0.5 Gy of gamma-ray and the involvement of low dose radiation inducible CHD6 gene in cell proliferation and radiosensitivity. *Int. J. Radiat. Biol.* 82: 181-190.
6. Joó, J.G., et al. 2006. Trisomy 20 mosaicism and nonmosaic trisomy 20: a report of 2 cases. *J. Reprod. Med.* 51: 209-212.
7. Ville, D., et al. 2006. Early pattern of epilepsy in the ring chromosome 20 syndrome. *Epilepsia* 47: 543-549.

CHROMOSOMAL LOCATION

Genetic locus: CHD6 (human) mapping to 20q12; Chd6 (mouse) mapping to 2 H2.

SOURCE

CHD6 (A-5) is a mouse monoclonal antibody raised against amino acids 243-320 mapping near the N-terminus of CHD6 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-393421 X, 200 µg/0.1 ml.

STORAGE

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

APPLICATIONS

CHD6 (A-5) is recommended for detection of CHD6 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 CHD6 siRNA (h): sc-72883, CHD6 siRNA (m): sc-142321, CHD6 shRNA Plasmid (h): sc-72883-SH, CHD6 shRNA Plasmid (m): sc-142321-SH, CHD6 shRNA (h) Lentiviral Particles: sc-72883-V and CHD6 shRNA (m) Lentiviral Particles: sc-142321-V.

CHD6 (A-5) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

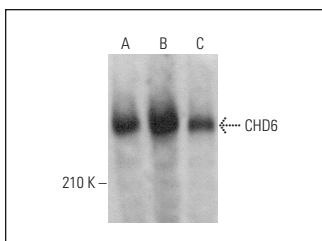
Molecular Weight of CHD6: 305 kDa.

Positive Controls: Y79 cell lysate: sc-2240, HeLa whole cell lysate: sc-2200 or MCF7 whole cell lysate: sc-2206.

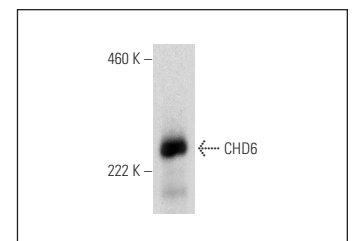
RECOMMENDED SUPPORT REAGENTS

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, 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 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



CHD6 (A-5): sc-393421. Western blot analysis of CHD6 expression in Y79 (A), HeLa (B) and MCF7 (C) whole cell lysates.



CHD6 (A-5): sc-393421. Western blot analysis of CHD6 expression in Y79 whole cell lysate.

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.