

# CHD6 (2174C2a): sc-81066

## 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 chromodomain-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.
8. Elghezal, H., et al. 2007. Ring chromosome 20 syndrome without deletions of the subtelomeric and CHRNA4-KCNQ2 genes loci. *Eur. J. Med. Genet.* 50: 441-445.

## CHROMOSOMAL LOCATION

Genetic locus: CHD6 (human) mapping to 20q12.

## SOURCE

CHD6 (2174C2a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to a region near the C-terminus of CHD6 of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% BSA.

## APPLICATIONS

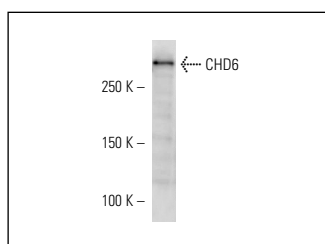
CHD6 (2174C2a) is recommended for detection of CHD6 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for CHD6 siRNA (h): sc-72883, CHD6 shRNA Plasmid (h): sc-72883-SH and CHD6 shRNA (h) Lentiviral Particles: sc-72883-V.

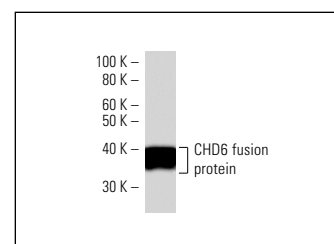
Molecular Weight of CHD6: 305 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## DATA



CHD6 (2174C2a): sc-81066. Western Blot analysis of CHD6 expression in HeLa whole cell lysate.



CHD6 (2174C2a): sc-81066. Western Blot analysis of human recombinant CHD6 fusion protein.

## SELECT PRODUCT CITATIONS

1. Fertey, J., et al. 2010. Interaction of the papillomavirus E8-E2C protein with the cellular CHD6 protein contributes to transcriptional repression. *J. Virol.* 84: 9505-9515.

## 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) for detailed protocols and support products.