

# CHD1 (H-210): sc-134751

## BACKGROUND

Chromodomains participate in the recognition of lysine-methylated histone tails and nucleic acids. The CHD1 (chromodomain-helicase-DNA-binding protein 1) protein is named for its chromodomain, ATPase helicase-like domain and DNA-binding domain. CHD1 functions as an ATP-utilizing chromatin assembly factor. Unlike HP1 and Polycomb proteins that use single chromodomains to bind to their respective methylated Histone H3 tails, the two chromodomains of CHD1 cooperate to associate with one methylated H3 tail. Unique inserts within chromodomain 1 of CHD1 block the expected site of H3 tail binding seen in HP1 and Polycomb, and instead direct H3 binding to a groove at the interchromodomain junction. The human CHD1 gene maps to 5q21.1 and encodes a 1,709 amino acid deduced protein that shares 95.5% identity with the 1,711 amino acid mouse Chd1 polypeptide.

## REFERENCES

1. Stokes, D.G., et al. 1995. DNA-binding and chromatin localization properties of CHD1. *Mol. Cell. Biol.* 15: 2745-2753.
2. Stokes, D.G., et al. 1996. CHD1 is concentrated in interbands and puffed regions of *Drosophila* polytene chromosomes. *Proc. Natl. Acad. Sci. USA* 93: 7137-7142.
3. Fridolfsson, A.K., et al. 2000. Molecular evolution of the avian CHD1 genes on the Z and W sex chromosomes. *Genetics* 155: 1903-1912.
4. Tsang, J.S., et al. 2002. Sec-dependent and Sec-independent translocation of haloacid dehalogenase CHD1 of *Burkholderia cepacia* MBA4 in *Escherichia coli*. *FEMS Microbiol. Lett.* 211: 259-264.
5. Simic, R., et al. 2003. Chromatin remodeling protein CHD1 interacts with transcription elongation factors and localizes to transcribed genes. *EMBO J.* 22: 1846-1856.
6. Tai, H.H., et al. 2003. CHD1 associates with NCoR and histone deacetylase as well as with RNA splicing proteins. *Biochem. Biophys. Res. Commun.* 308: 170-176.

## CHROMOSOMAL LOCATION

Genetic locus: CHD1 (human) mapping to 5q15; Chd1 (mouse) mapping to 17 A2.

## SOURCE

CHD1 (H-210) is a rabbit polyclonal antibody raised against amino acids 1500-1709 mapping at the C-terminus of CHD1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

CHD1 (H-210) is recommended for detection of CHD1 of mouse, rat and 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).

CHD1 (H-210) is also recommended for detection of CHD1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CHD1 siRNA (h): sc-60363, CHD1 siRNA (m): sc-60364, CHD1 shRNA Plasmid (h): sc-60363-SH, CHD1 shRNA Plasmid (m): sc-60364-SH, CHD1 shRNA (h) Lentiviral Particles: sc-60363-V and CHD1 shRNA (m) Lentiviral Particles: sc-60364-V.

Molecular Weight of CHD1: 200 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.

## 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.


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Try **CHD1 (C-8): sc-271626**, our highly recommended monoclonal alternative to CHD1 (H-210).