

# CHD7 (G-20): sc-79207

## BACKGROUND

Chromodomain-helicase-DNA-binding protein 7 (CHD7) is a 2,997 amino acid member of the SNF2/RAD54 helicase family of proteins and contains 2 chromo domains, one helicase ATP-binding domain and one helicase C-terminal domain. Highly expressed in both fetal and adult brain, CHD7 is thought to be a potential transcription regulator. Mutations in the gene encoding CHD7 have been shown to cause CHARGE syndrome, a common cause of congenital anomalies, including choanal atresia and malformations of the heart, inner ear and retina. Defects in the CHD7 gene have also been linked to increased susceptibility to idiopathic scoliosis, the most common spinal deformity in children. Two isoforms of CHD7 exist as a result of alternative splicing events.

## REFERENCES

- Ogata, T., Fujiwara, I., Ogawa, E., Sato, N., Udaka, T. and Kosaki, K. 2006. Kallmann syndrome phenotype in a female patient with CHARGE syndrome and CHD7 mutation. *Endocr. J.* 53: 741-743.
- Gao, X., Gordon, D., Zhang, D., Browne, R., Helms, C., Gillum, J., Weber, S., Devroy, S., Swaney, S., Dobbs, M., Morcuende, J., Sheffield, V., Lovett, M., Bowcock, A., Herring, J. and Wise, C. 2007. CHD7 gene polymorphisms are associated with susceptibility to idiopathic scoliosis. *Am. J. Hum. Genet.* 80: 957-965.
- Udaka, T., Okamoto, N., Aramaki, M., Torii, C., Kosaki, R., Hosokai, N., Hayakawa, T., Takahata, N., Takahashi, T. and Kosaki, K. 2007. An Alu retrotransposition-mediated deletion of CHD7 in a patient with CHARGE syndrome. *Am. J. Med. Genet. A* 143A: 721-726.
- Hurd, E.A., Capers, P.L., Blauwkamp, M.N., Adams, M.E., Raphael, Y., Poucher, H.K. and Martin, D.M. 2007. Loss of CHD7 function in gene-trapped reporter mice is embryonic lethal and associated with severe defects in multiple developing tissues. *Mamm. Genome* 18: 94-104.

## CHROMOSOMAL LOCATION

Genetic locus: CHD7 (human) mapping to 8q12.1; Chd7 (mouse) mapping to 4 A1.

## SOURCE

CHD7 (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CHD7 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.

Blocking peptide available for competition studies, sc-79207 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

CHD7 (G-20) is recommended for detection of CHD7 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).

CHD7 (G-20) is also recommended for detection of CHD7 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for CHD7 siRNA (h): sc-72884, CHD7 siRNA (m): sc-72885, CHD7 shRNA Plasmid (h): sc-72884-SH, CHD7 shRNA Plasmid (m): sc-72885-SH, CHD7 shRNA (h) Lentiviral Particles: sc-72884-V and CHD7 shRNA (m) Lentiviral Particles: sc-72885-V.

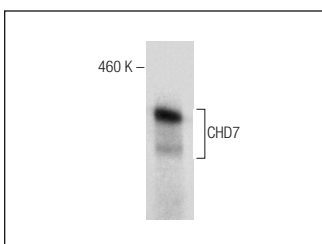
Molecular Weight of CHD7: 336 kDa.

Positive Controls: Jurkat nuclear extract: sc-79207.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



CHD7 (G-20): sc-79207. Western blot analysis of CHD7 expression in Jurkat nuclear extract.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

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Try **CHD7 (F-11): sc-390742**, our highly recommended monoclonal alternative to CHD7 (G-20).