

CHD9 (G-20): sc-82810

BACKGROUND

CHD9 (chromodomain-helicase-DNA-binding protein 9), also known as chromatin-related mesenchymal modulator (CReMM), PPAR- α -interacting complex protein 320 kDa, kismet homolog 2 or CHROM1, is a 2,897 amino acid protein belonging to the Snf2/Rad54 helicase family. The CHD family of proteins are ATP-dependent chromatin remodeling enzymes which combine chromodomains with SWI2/Snf2 ATPase/helicase motifs and DNA-binding capability. Localized to the cytoplasm and the nucleus, CHD9 contains two chromodomains, one ATP-binding helicase domain and one C-terminal helicase domain. 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. CHD9 acts as a transcriptional co-activator for PPAR α and may also be an ATP-dependent chromatin remodeling protein. CHD9 is widely expressed at low levels and is present as three isoforms produced by alternative splicing.

REFERENCES

1. Jones, D.O., Cowell, I.G. and Singh, P.B. 2000. Mammalian chromodomain proteins: their role in genome organisation and expression. *Bioessays* 22: 124-137.
2. Shur, I. and Benayahu, D. 2005. Characterization and functional analysis of CReMM, a novel chromodomain helicase DNA-binding protein. *J. Mol. Biol.* 352: 646-655.
3. Surapureddi, S., Viswakarma, N., Yu, S., Guo, D., Rao, M.S. and Reddy, J.K. 2006. PRIC320, a transcription co-activator, isolated from peroxisome proliferator-binding protein complex. *Biochem. Biophys. Res. Commun.* 343: 535-543.
4. Shur, I., Socher, R. and Benayahu, D. 2006. *In vivo* association of CReMM/CHD9 with promoters in osteogenic cells. *J. Cell. Physiol.* 207: 374-378.
5. Marom, R., Shur, I., Hager, G.L. and Benayahu, D. 2006. Expression and regulation of CReMM, a chromodomain helicase-DNA-binding (CHD), in marrow stroma derived osteoprogenitors. *J. Cell. Physiol.* 207: 628-635.

CHROMOSOMAL LOCATION

Genetic locus: CHD9 (human) mapping to 16q12.2; Chd9 (mouse) mapping to 8 C5.

SOURCE

CHD9 (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CHD9 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-82810 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-82810 X, 200 μ g/0.1 ml.

APPLICATIONS

CHD9 (G-20) is recommended for detection of CHD9 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other CHD family members.

CHD9 (G-20) is also recommended for detection of CHD9 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for CHD9 siRNA (h): sc-72886, CHD9 siRNA (m): sc-72887, CHD9 shRNA Plasmid (h): sc-72886-SH, CHD9 shRNA Plasmid (m): sc-72887-SH, CHD9 shRNA (h) Lentiviral Particles: sc-72886-V and CHD9 shRNA (m) Lentiviral Particles: sc-72887-V.

CHD9 (G-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of CHD9: 326 kDa.

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) 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.

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 or our catalog for detailed protocols and support products.