

CHD9 (E-4): sc-390291

BACKGROUND

CHD9 (chromodomain-helicase-DNA-binding protein 9), also known as chromatin-related mesenchymal modulator (CReMM), PPAR- α -interacting complex protein, 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 coactivator 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., et al. 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., et al. 2006. PRIC320, a transcription coactivator, isolated from peroxisome proliferator-binding protein complex. *Biochem. Biophys. Res. Commun.* 343: 535-543.
4. Shur, I., et al. 2006. *In vivo* association of CReMM/CHD9 with promoters in osteogenic cells. *J. Cell. Physiol.* 207: 374-378.

CHROMOSOMAL LOCATION

Genetic locus: CHD9 (human) mapping to 16q12.2.

SOURCE

CHD9 (E-4) is a mouse monoclonal antibody raised against amino acids 225-514 mapping near the N-terminus of CHD9 of human origin.

PRODUCT

Each vial contains 200 μ g 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-390291 X, 200 μ g/0.1 ml.

CHD9 (E-4) is available conjugated to agarose (sc-390291 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390291 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390291 PE), fluorescein (sc-390291 FITC), Alexa Fluor[®] 488 (sc-390291 AF488), Alexa Fluor[®] 546 (sc-390291 AF546), Alexa Fluor[®] 594 (sc-390291 AF594) or Alexa Fluor[®] 647 (sc-390291 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-390291 AF680) or Alexa Fluor[®] 790 (sc-390291 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CHD9 (E-4) is recommended for detection of CHD9 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 CHD9 siRNA (h): sc-72886, CHD9 shRNA Plasmid (h): sc-72886-SH and CHD9 shRNA (h) Lentiviral Particles: sc-72886-V.

CHD9 (E-4) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

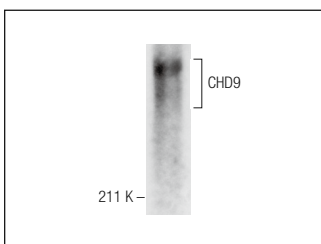
Molecular Weight of CHD9: 326 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



CHD9 (E-4): sc-390291. Western blot analysis of CHD9 expression in HeLa nuclear extract.

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 for detailed protocols and support products.