

# CHD9 (E-4): sc-390291

## BACKGROUND

CHD9 (chromodomain-helicase-DNA-binding protein 9), also known as chromatin-related mesenchymal modulator (CReMM), PPAR- $\alpha$ -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 $\alpha$  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  $\mu$ g IgG<sub>1</sub> 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  $\mu$ g/0.1 ml.

CHD9 (E-4) is available conjugated to agarose (sc-390291 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390291 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390291 PE), fluorescein (sc-390291 FITC), Alexa Fluor<sup>®</sup> 488 (sc-390291 AF488), Alexa Fluor<sup>®</sup> 546 (sc-390291 AF546), Alexa Fluor<sup>®</sup> 594 (sc-390291 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-390291 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-390291 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-390291 AF790), 200  $\mu$ 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  $\mu$ g per 100-500  $\mu$ 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.

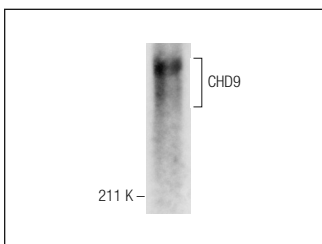
Molecular Weight of CHD9: 326 kDa.

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 $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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 $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> 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](http://www.scbt.com) for detailed protocols and support products.