

CHD6 (E-6): sc-393445



The Power to Question

BACKGROUND

CHD6 (chromodomain-helicase-DNA-binding protein 6, radiation-induced gene B protein) is a 2,715 amino acid protein encoded by the human gene CHD6. CHD6 belongs to the Snf2/Rad54 helicase family and contains two chromodomains, one ATP-binding helicase domain and one C-terminal helicase domain. The CHD family of proteins are ATP-dependent chromatin remodeling enzymes which combine chromodomains with SWI2/Snf2 ATPase/helicase motifs and DNA-binding capability. 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.

REFERENCES

1. Jones, D.O., et al. 2000. Mammalian chromodomain proteins: their role in genome organisation and expression. *Bioessays* 22: 124-137.
2. Tajul-Arifin, K., et al. 2003. Identification and analysis of chromo-domain-containing proteins encoded in the mouse transcriptome. *Genome Res.* 13: 1416-1429.
3. Olsen, J.V., et al. 2006. Global, *in vivo*, and site-specific phosphorylation dynamics in signaling networks. *Cell* 127: 635-648.
4. Lutz, T., et al. 2006. CHD6 is a DNA-dependent ATPase and localizes at nuclear sites of mRNA synthesis. *FEBS Lett.* 580: 5851-5857.

CHROMOSOMAL LOCATION

Genetic locus: CHD6 (human) mapping to 20q12; Chd6 (mouse) mapping to 2 H2.

SOURCE

CHD6 (E-6) is a mouse monoclonal antibody raised against amino acids 243-320 mapping near the N-terminus of CHD6 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} 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-393445 X, 200 µg/0.1 ml.

CHD6 (E-6) is available conjugated to agarose (sc-393445 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393445 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393445 PE), fluorescein (sc-393445 FITC), Alexa Fluor® 488 (sc-393445 AF488), Alexa Fluor® 546 (sc-393445 AF546), Alexa Fluor® 594 (sc-393445 AF594) or Alexa Fluor® 647 (sc-393445 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393445 AF680) or Alexa Fluor® 790 (sc-393445 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

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

APPLICATIONS

CHD6 (E-6) is recommended for detection of CHD6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for CHD6 siRNA (h): sc-72883, CHD6 siRNA (m): sc-142321, CHD6 shRNA Plasmid (h): sc-72883-SH, CHD6 shRNA Plasmid (m): sc-142321-SH, CHD6 shRNA (h) Lentiviral Particles: sc-72883-V and CHD6 shRNA (m) Lentiviral Particles: sc-142321-V.

CHD6 (E-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

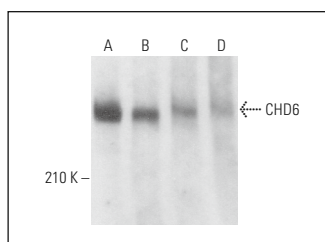
Molecular Weight of CHD6: 305 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, Y79 cell lysate: sc-2240 or PC-3 cell lysate: sc-2220.

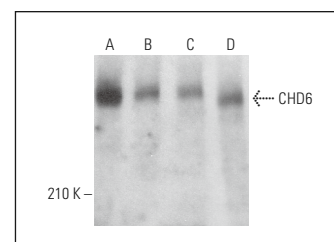
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



CHD6 (E-6): sc-393445. Western blot analysis of CHD6 expression in Y79 (A), MCF7 (B), PC-3 (C) and RAW 264.7 (D) whole cell lysates.



CHD6 (E-6): sc-393445. Western blot analysis of CHD6 expression in Y79 (A), MCF7 (B), PC-3 (C) and SJRH30 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Zhang, B., et al. 2022. The chromatin remodeler CHD6 promotes colorectal cancer development by regulating TMEM65-mediated mitochondrial dynamics via EGF and Wnt signaling. *Cell Discov.* 8: 130.

RESEARCH USE

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