

#11891 Store at -20°C

CHD8 (D3C1) Rabbit mAb**Cell Signaling**
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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H	Endogenous	290	Rabbit IgG	#Q9HCK8	57680

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Immunoprecipitation

1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity / Sensitivity

CHD8 (D3C1) Rabbit mAb recognizes endogenous levels of total CHD8 protein. This antibody also cross-reacts with a protein of unknown origin at 140 kDa.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a recombinant protein specific to the carboxy terminus of human CHD8 protein.

Background

CHD8 belongs to the chromodomain helicase DNA-binding (CHD) family of ATP-dependent chromatin remodeling proteins (1). The CHD family of proteins has been shown to play an important role in regulating gene expression by utilizing the energy derived from ATP hydrolysis to alter chromatin architecture (1,2). The nine CHD family members are characterized by the presence of two tandem chromodomains in the N-terminal region and an SNF2-like ATPase domain near the central region of the protein (2-4). In addition, CHD8 contains three CR (conserved region) domains, a SANT (switching-defective protein 3, adaptor 2, nuclear receptor co-repressor, transcription factor IIB)-like domain, two BRK (brahma and kismet) domains, and a DNA-binding domain (2). The chromatin remodeling activity of CHD8 has been shown to be important for the regulation of a wide variety of genes, such as the HOX genes (5) and genes that are driven by β -catenin (6), p53 (7), estrogen receptor (8), or androgen receptor (9). CHD8 can also interact with the insulator binding protein CTCF and is required for CTCF insulator activity at multiple gene loci (10).

Background References

1. Hargreaves, D.C. and Crabtree, G.R. (2011) *Cell Res* 21, 396-420.
2. Marfella, C.G. and Imbalzano, A.N. (2007) *Mutat Res* 618, 30-40.
3. Delmas, V. et al. (1993) *Proc Natl Acad Sci U S A* 90, 2414-8.
4. Woodage, T. et al. (1997) *Proc Natl Acad Sci U S A* 94, 11472-7.
5. Yates, J.A. et al. (2010) *FEBS Lett* 584, 689-93.
6. Thompson, B.A. et al. (2008) *Mol Cell Biol* 28, 3894-904.
7. Nishiyama, M. et al. (2009) *Nat Cell Biol* 11, 172-82.
8. Caldon, C.E. et al. (2009) *Mol Cell Biol* 29, 4623-39.
9. Menon, T. et al. (2010) *Mol Endocrinol* 24, 1165-74.
10. Ishihara, K. et al. (2006) *Mol Cell* 23, 733-42.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key**WB:** Western Blotting **IP:** Immunoprecipitation**Cross-Reactivity Key**

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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