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CHD7 Antibody

Catalog # ASC11359

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q9P2D1
Other Accession	Q9P2D1, 54112403
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	335927
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	CHD7 antibody can be used for detection of CHD7 by Western blot at 1 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	55636
Other Names	Chromodomain-helicase-DNA-binding protein 7, CHD-7, 3.6.4.12, ATP-dependent helicase CHD7, CHD7, KIAA1416
Target/Specificity	CHD7; Multiple isoforms of CHD7 are known to exist.
Reconstitution & Storage	CHD7 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	CHD7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CHD7
Synonyms	KIAA1416
Function	ATP-dependent chromatin-remodeling factor, slides nucleosomes along DNA; nucleosome sliding requires ATP (PubMed:28533432). Probable transcription regulator. May be involved in the in 45S precursor rRNA production.
Cellular Location	[Isoform 1]: Nucleus

Tissue Location	Widely expressed in fetal and adult tissues.

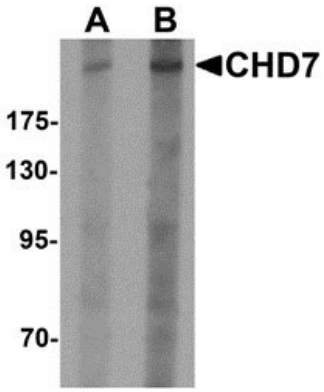
Background

CHD7 Antibody: CHD proteins belong to a superfamily of proteins of ATP-dependent chromatin remodeling enzymes that have a unique combination of functional domains, including two N-terminal chromodomains, a SNF2-like ATPase/helicase domain and a DNA-binding domain. These proteins are thought to play a role in early embryonic development by affecting chromatin structure and gene expression. Mutations in one member of this family, CHD7, result in CHARGE syndrome. It colocalizes with embryonic stem (ES) cell master regulators OCT4/POU5F1, SOX2, and NANOG and is thought to modulate ES-specific gene transcription. Together with SOX2, CHD7 has been suggested to also regulate several human disease genes.

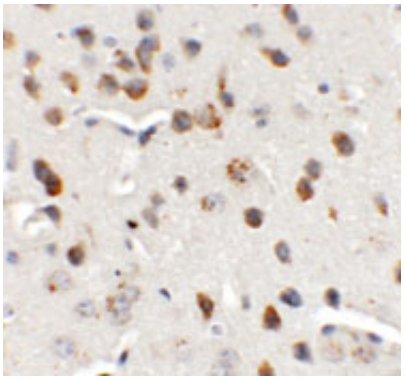
References

Woodage T, Basrai MA, Baxevanis AD, et al. Characterization of the CHD family of proteins. Proc. Natl. Acad. Sci. USA 1997; 94:11472-7.
Cavalli G and Paro R. Chromo-domain proteins: linking chromatin structure to epigenetic regulation. Curr. Opin. Cell Biol. 1998; 10:354-60.
Vissers LE, van Ravenswaaj CM, Admiraal R, et al. Mutations in a new member of the chromodomain gene family cause CHARGE syndrome. Nat. Genet. 2004; 36:955-7.
Schnetz MP, Handoko L, Akhtar-Zaidi B, et al. CHD7 targets active gene enhancer elements to modulate ES cell-specific gene expression. PLoS Genet. 2010; 6:31001023.

Images

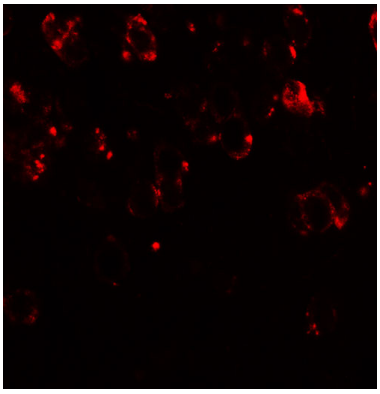


Western blot analysis of CHD7 in SK-N-SH cell lysate with CHD7 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of CHD7 in mouse brain tissue with CHD7 antibody at 5 µg/mL.

Immunofluorescence of CHD7 in mouse brain tissue with CHD7 antibody at 20 µg/mL.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.