

Anti-CHD5 antibody



Description Unconjugated Rabbit polyclonal to CHD5

Model STJ190696

Host Rabbit

Reactivity Human

Applications ELISA, WB

Gene ID 26038

Gene Symbol CHD5

Dilution range WB 1:500-2000 ELISA 1:5000-20000

Specificity CHD5 Polyclonal Antibody detects endogenous levels of protein.

Tissue Specificity Preferentially expressed in total brain, fetal brain, and cerebellum. It is also

moderately expressed in the adrenal gland and detected in testis.

Purification CHD5 antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Chromodomain-helicase-DNA-binding protein 5 CHD-5 ATP-dependent

helicase CHD5

Molecular Weight 214 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid form in PBS containing 50% glycerol, and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:16816OMIM:610771</u>

Alternative Names Chromodomain-helicase-DNA-binding protein 5 CHD-5 ATP-dependent

helicase CHD5

Function Chromatin-remodeling protein that binds DNA through histones and regulates

gene transcription. May specifically recognize and bind trimethylated 'Lys-27' (H3K27me3) and non-methylated 'Lys-4' of histone H3. Plays a role in the development of the nervous system by activating the expression of genes promoting neuron terminal differentiation. In parallel, it may also positively regulate the trimethylation of histone H3 at 'Lys-27' thereby specifically repressing genes that promote the differentiation into non-neuronal cell lineages. Tumor suppressor, it regulates the expression of genes involved in cell proliferation and differentiation. Downstream activated genes may include CDKN2A that positively regulates the p53/TP53 pathway, which in turn, prevents cell proliferation. In spermatogenesis, it probably regulates histone hyperacetylation and the replacement of histones by transition proteins in chromatin, a crucial step in the condensation of spermatid chromatin and the

production of functional spermatozoa.

Sequence and Domain Family The PHD domains mediate specific binding to histone H3 unmethylated at

'Lys-4' and may preferentially recruit the protein to transcriptionally inactive genes. The chromo domains mediate specific binding to histone H3

trimethylated at 'Lys-27' (H3K27me3) and may be required in neuron

differentiation for proper gene regulation.

Cellular Localization Nucleus. Associates with heterochromatin.

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