

# **CHD5 Blocking Peptide (N-Term)**

Synthetic peptide Catalog # BP22011a

### **Specification**

### CHD5 Blocking Peptide (N-Term) - Product Information

**Primary Accession** 

**08TDI0** 

# CHD5 Blocking Peptide (N-Term) - Additional Information

**Gene ID 26038** 

### **Other Names**

Chromodomain-helicase-DNA-binding protein 5, CHD-5, 3.6.4.12, ATP-dependent helicase CHD5, CHD5 {ECO:0000312|EMBL:AAL98962.1}, KIAA0444

# Target/Specificity

The synthetic peptide sequence is selected from aa 84-98 of HUMAN CHD5

#### **Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

### **Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

### CHD5 Blocking Peptide (N-Term) - Protein Information

Name CHD5 {ECO:0000312|EMBL:AAL98962.1}

Synonyms KIAA0444

### **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. Acts as a component of the histone deacetylase NuRD complex which participates in the remodeling of chromatin. 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. 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.



### **Cellular Location**

Nucleus. Chromosome {ECO:0000250|UniProtKB:A2A8L1}

### **Tissue Location**

Preferentially expressed in total brain, fetal brain, and cerebellum. It is also moderately expressed in the adrenal gland and detected in testis.

# CHD5 Blocking Peptide (N-Term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

# • Blocking Peptides

CHD5 Blocking Peptide (N-Term) - Images

## CHD5 Blocking Peptide (N-Term) - Background

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.

# CHD5 Blocking Peptide (N-Term) - References

Thompson P.M.,et al.Oncogene 22:1002-1011(2003). Gregory S.G.,et al.Nature 441:315-321(2006). Bechtel S.,et al.BMC Genomics 8:399-399(2007). Seki N.,et al.DNA Res. 4:345-349(1997). Bagchi A.,et al.Cell 128:459-475(2007).