



## **BRD4 Antibody (C-term) Blocking Peptide**

Synthetic peptide Catalog # BP17153b

### **Specification**

BRD4 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession <u>060885</u>

BRD4 Antibody (C-term) Blocking Peptide - Additional Information

**Gene ID 23476** 

#### **Other Names**

Bromodomain-containing protein 4, Protein HUNK1, BRD4, HUNK1

#### **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.

BRD4 Antibody (C-term) Blocking Peptide - Protein Information

Name BRD4

Synonyms HUNK1

### **Function**

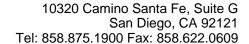
Chromatin reader protein that recognizes and binds acetylated histones and plays a key role in transmission of epigenetic memory across cell divisions and transcription regulation. Remains associated with acetylated chromatin throughout the entire cell cycle and provides epigenetic memory for postmitotic

# BRD4 Antibody (C-term) Blocking Peptide - Background

The protein encoded by this gene is homologous to themurine protein MCAP, which associates with chromosomes duringmitosis, and to the human RING3 protein, a serine/threonine kinase. Each of these proteins contains two bromodomains, a conserved sequence motif which may be involved in chromatin targeting. This gene has been implicated as the chromosome 19 target oftranslocation t(15;19)(q13;p13.1), which defines an upperrespiratory tract carcinoma in young people. Two alternatively spliced transcript variants have been described. [provided by RefSeq].

# BRD4 Antibody (C-term) Blocking Peptide - References

Reynoird, N., et al. EMBO J. 29(17):2943-2952(2010)Dow, E.C., et al. J. Cell. Physiol. 224(1):84-93(2010)Yan, J., et al. J. Virol. 84(1):76-87(2010)Weidner-Glunde, M., et al. Front. Biosci. 15, 537-549 (2010):You, J., et al. Mol. Cell. Biol. 29(18):5094-5103(2009)





G1 gene transcription by preserving acetylated chromatin status and maintaining high-order chromatin structure (PubMed:<a href="http://www.uniprot.org/c itations/23589332" target=" blank">23589332</a>,

PubMed:<a href="http://www.uniprot.org/ci tations/23317504"

target=" blank">23317504</a>,

PubMed:<a href="http://www.uniprot.org/ci tations/22334664"

target=" blank">22334664</a>). During interphase, plays a key role in regulating the transcription of signal- inducible genes by associating with the P-TEFb complex and recruiting it to promoters. Also recruits P-TEFb complex to distal enhancers, so called anti-pause enhancers in collaboration with JMJD6. BRD4 and JMJD6 are required to form the transcriptionally active P-TEFb complex by displacing negative regulators such as HEXIM1 and 7SKsnRNA complex from P-TEFb, thereby transforming it into an active form that can then phosphorylate the C-terminal domain (CTD) of RNA polymerase II (PubMed:<a href="http://ww w.uniprot.org/citations/23589332" target=" blank">23589332</a>,

PubMed:<a href="http://www.uniprot.org/ci

tations/19596240" target=" blank">19596240</a>,

PubMed:<a href="http://www.uniprot.org/ci tations/16109377"

target=" blank">16109377</a>,

PubMed:<a href="http://www.uniprot.org/ci tations/16109376"

target=" blank">16109376</a>,

PubMed:<a href="http://www.uniprot.org/ci tations/24360279"

target=" blank">24360279</a>).

Promotes phosphorylation of 'Ser-2' of the C-terminal domain (CTD) of RNA polymerase II (PubMed:<a href="http://ww w.uniprot.org/citations/23086925"

target=" blank">23086925</a>).

According to a report, directly acts as an atypical protein kinase and mediates phosphorylation of 'Ser-2' of the C-terminal domain (CTD) of RNA polymerase II; these data however need additional evidences in vivo (PubMed: <a href="http://www.uniprot." org/citations/22509028"

target=" blank">22509028</a>). In addition to acetylated histones, also recognizes and binds acetylated RELA, leading to further recruitment of the P-TEFb complex and subsequent activation of



NF-kappa-B (PubMed:<a href="http://www.uniprot.org/citations/19103749" target="\_blank">19103749</a>). Also acts as a regulator of p53/TP53-mediated transcription: following phosphorylation by CK2, recruited to p53/TP53 specific target promoters (PubMed:<a href="http://www.uniprot.org/citations/23317504" target="\_blank">23317504</a>).

#### **Cellular Location**

Nucleus. Chromosome Note=Associates with acetylated chromatin (PubMed:21890894, PubMed:16109376). Released from chromatin upon deacetylation of histones that can be triggered by different signals such as activation of the JNK pathway or nocodazole treatment (PubMed:21890894, PubMed:16109376). Preferentially localizes to mitotic chromosomes, while it does not localizes to meiotic chromosomes (PubMed:21890894, PubMed:16109376).

# **Tissue Location**Ubiquitously expressed.

# BRD4 Antibody (C-term) Blocking Peptide - Protocols

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

• Blocking Peptides