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BRD4 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP17153b

Specification

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

Primary Accession O60885

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 (PubMed:23086925, PubMed:23317504, PubMed:20871596, PubMed:29176719). Remains associated with acetylated chromatin throughout the entire cell cycle and provides epigenetic memory for postmitotic G1 gene transcription by preserving acetylated chromatin status and maintaining high-order chromatin structure (PubMed:23589332, PubMed:23317504, PubMed:22334664). 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 (PubMed:23589332, PubMed:19596240, PubMed:<a

href="http://www.uniprot.org/citations/16109377" target="_blank">16109377, PubMed:16109376, PubMed:24360279). Also recruits P-TEFb complex to distal enhancers, so called anti-pause enhancers in collaboration with JMJD6 (PubMed:23589332, PubMed:19596240, PubMed:16109377, PubMed:16109376, PubMed:24360279). 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:23589332, PubMed:19596240, PubMed:16109377, PubMed:16109376, PubMed:24360279). Regulates differentiation of naive CD4(+) T-cells into T-helper Th17 by promoting recruitment of P-TEFb to promoters (By similarity). Promotes phosphorylation of 'Ser-2' of the C-terminal domain (CTD) of RNA polymerase II (PubMed:23086925). 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:22509028). 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:19103749). Also acts as a regulator of p53/TP53- mediated transcription: following phosphorylation by CK2, recruited to p53/TP53 specific target promoters (PubMed:23317504).

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 localize 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

BRD4 Antibody (C-term) Blocking Peptide - Images

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 conservedsequence motif which may be involved in chromatin targeting. Thisgene 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 alternativelyspliced transcript variants have been described. [provided byRefSeq].

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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)