

BRD4 Antibody (C-term) Blocking Peptide

Synthetic peptide Catalog # BP8051b

Specification

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

Primary Accession

060885

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

Gene ID 23476

Other Names

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

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP8051b was selected from the C-term region of human BRD4 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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: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:<a



href="http://www.uniprot.org/citations/23317504" target=" blank">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: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: <a $href="http://www.uniprot.org/citations/22509028" target="_blank">22509028). In addition to$ 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

Cellular Location

target=" blank">23317504).

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).

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"

Tissue Location

Ubiquitously expressed.

BRD4 Antibody (C-term) Blocking Peptide - Protocols

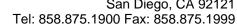
Provided below are standard protocols that you may find useful for product applications.

Blocking Peptides

BRD4 Antibody (C-term) Blocking Peptide - Images

BRD4 Antibody (C-term) Blocking Peptide - Background







BRD4 is homologous to the murine protein MCAP, which associates with chromosomes during mitosis, 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. The gene has been implicated as the chromosome 19 target of translocation t(15;19)(g13;p13.1), which defines an upper respiratory tract carcinoma in young people.

BRD4 Antibody (C-term) Blocking Peptide - References

Maruyama, T., et al., Mol. Cell. Biol. 22(18):6509-6520 (2002). French, C.A., et al., Am. J. Pathol. 159(6):1987-1992 (2001). Dey, A., et al., Mol. Cell. Biol. 20(17):6537-6549 (2000).