

BRD4 Blocking Peptide
Catalog # PBV10508b**Specification**

BRD4 Blocking Peptide - Product Information

Primary Accession	O60885
Gene ID	23476
Calculated MW	152219

BRD4 Blocking Peptide - Additional Information**Gene ID** 23476**Application & Usage**

The peptide is used for blocking the antibody activity of BRD4. It usually blocks the antibody activity completely in Western blot analysis by incubating the peptide with equal volume of antibody for 30-60 minutes at 37°C.

Other Names

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

Target/Specificity

BRD4

Formulation

50 µg (0.5 mg/ml) in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA and 0.02% thimerosal.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

BRD4 Blocking Peptide is for research use only and not for use in diagnostic or therapeutic procedures.

BRD4 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:<a

[23086925](http://www.uniprot.org/citations/23086925), PubMed: [23317504](http://www.uniprot.org/citations/23317504), PubMed: [20871596](http://www.uniprot.org/citations/20871596), PubMed: [29176719](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/23589332), PubMed: [23317504](http://www.uniprot.org/citations/23317504), PubMed: [22334664](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/23589332), PubMed: [19596240](http://www.uniprot.org/citations/19596240), PubMed: [16109377](http://www.uniprot.org/citations/16109377), PubMed: [16109376](http://www.uniprot.org/citations/16109376), PubMed: [24360279](http://www.uniprot.org/citations/24360279)). Also recruits P-TEFb complex to distal enhancers, so called anti-pause enhancers in collaboration with JMJD6 (PubMed: [23589332](http://www.uniprot.org/citations/23589332), PubMed: [19596240](http://www.uniprot.org/citations/19596240), PubMed: [16109377](http://www.uniprot.org/citations/16109377), PubMed: [16109376](http://www.uniprot.org/citations/16109376), PubMed: [24360279](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/23589332), PubMed: [19596240](http://www.uniprot.org/citations/19596240), PubMed: [16109377](http://www.uniprot.org/citations/16109377), PubMed: [16109376](http://www.uniprot.org/citations/16109376), PubMed: [24360279](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/19103749)). Also acts as a regulator of p53/TP53-mediated transcription: following phosphorylation by CK2, recruited to p53/TP53 specific target promoters (PubMed: [23317504](http://www.uniprot.org/citations/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 Blocking Peptide - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

BRD4 Blocking Peptide - Images