

Goat anti-BRD4 Antibody
Peptide-affinity purified goat antibody
Catalog # AF4462a

Specification

Goat anti-BRD4 Antibody - Product Information

Application	WB, Pep-ELISA
Primary Accession	O60885
Other Accession	NP_490597.1 , NP_055114.1
Reactivity	Human, Mouse, Rat, Dog
Host	Goat
Clonality	Polyclonal
Calculated MW	152219

Goat anti-BRD4 Antibody - Additional Information

Gene ID 23476

Other Names

BRD4; bromodomain containing 4; CAP; HUNK1; HUNKI; MCAP; bromodomain-containing 4; bromodomain-containing protein 4; chromosome-associated protein

Format

Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.

Immunogen

This antibody is expected to recognize both reported isoforms (NP_490597.1; NP_055114.1).

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat anti-BRD4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat anti-BRD4 Antibody - 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:20871596, PubMed:<a

[23086925](http://www.uniprot.org/citations/23086925), PubMed: [23317504](http://www.uniprot.org/citations/23317504), 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: [22334664](http://www.uniprot.org/citations/22334664), PubMed: [23317504](http://www.uniprot.org/citations/23317504), PubMed: [23589332](http://www.uniprot.org/citations/23589332)). 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: [16109376](http://www.uniprot.org/citations/16109376), PubMed: [16109377](http://www.uniprot.org/citations/16109377), PubMed: [19596240](http://www.uniprot.org/citations/19596240), PubMed: [23589332](http://www.uniprot.org/citations/23589332), 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: [16109376](http://www.uniprot.org/citations/16109376), PubMed: [16109377](http://www.uniprot.org/citations/16109377), PubMed: [19596240](http://www.uniprot.org/citations/19596240), PubMed: [23589332](http://www.uniprot.org/citations/23589332), 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: [16109376](http://www.uniprot.org/citations/16109376), PubMed: [16109377](http://www.uniprot.org/citations/16109377), PubMed: [19596240](http://www.uniprot.org/citations/19596240), PubMed: [23589332](http://www.uniprot.org/citations/23589332), 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:16109376, PubMed:21890894). 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:16109376, PubMed:21890894). Preferentially localizes to mitotic chromosomes, while it does not localize to meiotic chromosomes (PubMed:16109376, PubMed:21890894).

Tissue Location

Ubiquitously expressed.

Goat anti-BRD4 Antibody - 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](#)

Goat anti-BRD4 Antibody - Images