

BRD4 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8051a**Specification**

BRD4 Antibody (N-term) - Product Information

Application	IHC-P,E
Primary Accession	O60885
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	1-30

BRD4 Antibody (N-term) - Additional Information**Gene ID** 23476**Other Names**

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

Target/Specificity

This BRD4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1~30 amino acids from the N-terminal region of human BRD4.

Dilution

IHC-P~~1:50~100

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

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

Precautions

BRD4 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

BRD4 Antibody (N-term) - 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 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. 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:[23589332](#), PubMed:[19596240](#), PubMed:[16109377](#), PubMed:[16109376](#), PubMed:[24360279](#)). 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.

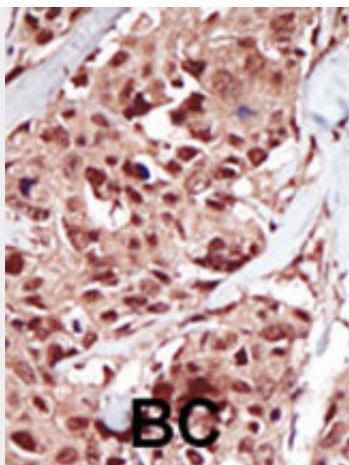
BRD4 Antibody (N-term) - Protocols

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 Antibody (N-term) - Images





Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

BRD4 Antibody (N-term) - 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)(q13;p13.1), which defines an upper respiratory tract carcinoma in young people.

BRD4 Antibody (N-term) - References

Gagnon, D. et al. J Virol. May; 83(9): 4127-4139(2009).
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).

BRD4 Antibody (N-term) - Citations

- [Proteasomal degradation of the papillomavirus E2 protein is inhibited by overexpression of bromodomain-containing protein 4.](#)