

**Anti-Brd4 Rabbit Monoclonal Antibody**  
Catalog # ABO13371

**Specification**

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**Anti-Brd4 Rabbit Monoclonal Antibody - Product Information**

Application	WB, IHC, IF, ICC, IP
Primary Accession	<a href="#">O60885</a>
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

**Description**

Anti-Brd4 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP applications. This antibody reacts with Human, Mouse, Rat.

**Anti-Brd4 Rabbit Monoclonal Antibody - Additional Information**

**Gene ID** 23476

**Other Names**

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

**Calculated MW**

152219 MW KDa

**Application Details**

WB 1:500-1:2000<br>IHC 1:50-1:200<br>ICC/IF 1:50-1:200<br>IP 1:50

**Subcellular Localization**

Nucleus. Chromosome. Associates with acetylated chromatin. Released from chromatin upon deacetylation of histones that can be triggered by different signals such as activation of the JNK pathway or nocodazole treatment.

**Tissue Specificity**

Ubiquitously expressed..

**Contents**

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

**Immunogen**

A synthesized peptide derived from human Brd4

**Purification**

Affinity-chromatography

**Storage**

**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for**

up to one month. Avoid repeated  
freeze-thaw cycles.

## Anti-Brd4 Rabbit Monoclonal 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: <a href="http://www.uniprot.org/citations/20871596" target="\_blank">20871596</a>, PubMed: <a href="http://www.uniprot.org/citations/23086925" target="\_blank">23086925</a>, PubMed: <a href="http://www.uniprot.org/citations/23317504" target="\_blank">23317504</a>, PubMed: <a href="http://www.uniprot.org/citations/29176719" target="\_blank">29176719</a>, PubMed: <a href="http://www.uniprot.org/citations/29379197" target="\_blank">29379197</a>). 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: <a href="http://www.uniprot.org/citations/22334664" target="\_blank">22334664</a>, PubMed: <a href="http://www.uniprot.org/citations/23317504" target="\_blank">23317504</a>, PubMed: <a href="http://www.uniprot.org/citations/23589332" target="\_blank">23589332</a>). 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: <a href="http://www.uniprot.org/citations/16109376" target="\_blank">16109376</a>, PubMed: <a href="http://www.uniprot.org/citations/16109377" target="\_blank">16109377</a>, PubMed: <a href="http://www.uniprot.org/citations/19596240" target="\_blank">19596240</a>, PubMed: <a href="http://www.uniprot.org/citations/23589332" target="\_blank">23589332</a>, PubMed: <a href="http://www.uniprot.org/citations/24360279" target="\_blank">24360279</a>). Also recruits P-TEFb complex to distal enhancers, so called anti-pause enhancers in collaboration with JMJD6 (PubMed: <a href="http://www.uniprot.org/citations/16109376" target="\_blank">16109376</a>, PubMed: <a href="http://www.uniprot.org/citations/16109377" target="\_blank">16109377</a>, PubMed: <a href="http://www.uniprot.org/citations/19596240" target="\_blank">19596240</a>, PubMed: <a href="http://www.uniprot.org/citations/23589332" target="\_blank">23589332</a>, PubMed: <a href="http://www.uniprot.org/citations/24360279" target="\_blank">24360279</a>). 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: <a href="http://www.uniprot.org/citations/16109376" target="\_blank">16109376</a>, PubMed: <a href="http://www.uniprot.org/citations/16109377" target="\_blank">16109377</a>, PubMed: <a href="http://www.uniprot.org/citations/19596240" target="\_blank">19596240</a>, PubMed: <a href="http://www.uniprot.org/citations/23589332" target="\_blank">23589332</a>, PubMed: <a href="http://www.uniprot.org/citations/24360279" target="\_blank">24360279</a>). 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: <a href="http://www.uniprot.org/citations/23086925" target="\_blank">23086925</a>). 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</a>). 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: <a href="http://www.uniprot.org/citations/19103749" target="\_blank">19103749</a>). Also acts as 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" target="\_blank">23317504</a>

target="\_blank">23317504</a>).

#### 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

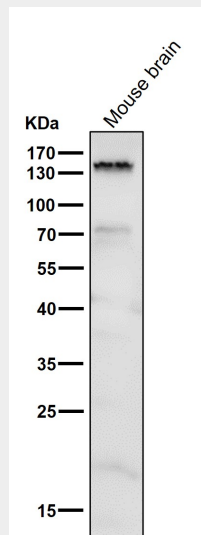
Ubiquitously expressed.

### Anti-Brd4 Rabbit Monoclonal Antibody - Protocols

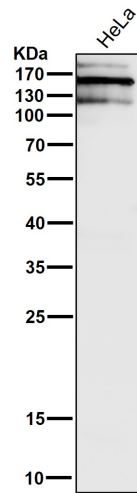
Provided below are standard protocols that you may find useful for product applications.

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

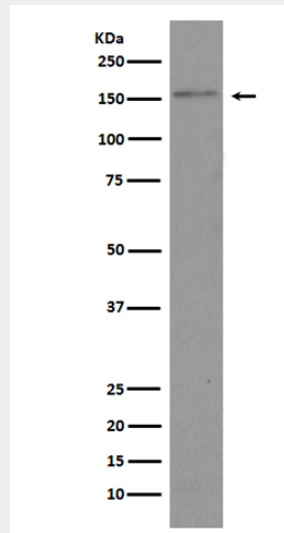
### Anti-Brd4 Rabbit Monoclonal Antibody - Images



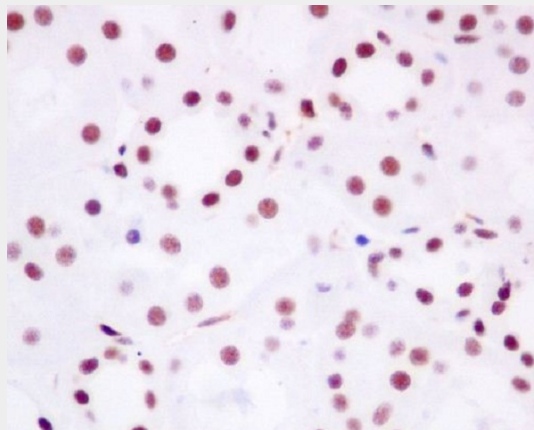
All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



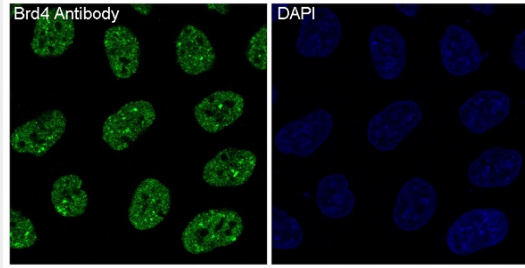
All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



Western blot analysis of Brd4 expression in HeLa cell lysate.



Immunohistochemical analysis of paraffin-embedded human kidney, using Brd4 Antibody.



Immunofluorescent analysis of HeLa cells, using Brd4 Antibody.