

## Recombinant Human BRD4, His&FLAG-tagged

**Cat. No.** BRD4-36H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| <b>Product Overview</b> | Recombinant Human BRD4 corresponding to amino acids 333-460 that contains the bromodomain sequences of BRD4 (accession number NP_490597.1) was expressed in E. coli and contains an N-terminal His tag and C-terminal FLAG tag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>ProteinLength</b>    | 333-460 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>      | Bromodomain-containing protein 4 (BRD4) belongs to the BET subclass of proteins, which are characterized by two N-terminal bromodomains and one ET (Extra Terminal) domain. BRDs associate with chromatin through their bromodomains that recognize acetylated histone lysine residues. Bromodomains function as "readers" of these epigenetic histone marks and regulate chromatin structure and gene expression by linking associated proteins to the acetylated nucleosomal targets. The ET domain functions as a protein binding motif and exerts atypical serine-kinase activity. The BET family consists of at least four members in mouse and human, BRD2 (also referred to as FSRG1, RING3), BRD3 (FSRG2, ORFX), BRD4 (FSRG4, MCAP/HUNK1), and BRDT (FSRG3, BRD6). BRD proteins are related to the female Sterile Homeotic protein gene in Drosophila, a gene required maternally for proper expression of other homeotic genes, such as Ubx, which is involved in pattern formation. BRD4 has been identified recently as a therapeutic target in many cancers, including acute myeloid leukemia, multiple myeloma, Burkitt's lymphoma, NUT |

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midline carcinoma, colon cancer, and breast cancer. BRD4 regulates the transcription of oncogenes, HIV, and human papilloma virus (HPV). It has been shown to bind and phosphorylate RNA pol II, which implicates its involvement in the regulation of eukaryotic transcription.

**Form** 25 mM HEPES pH 7.5, 150 mM NaCl and 5% glycerol.

**Molecular Mass** 20.9 kDa

**Applications** Binding assays, inhibitor screening, and selectivity profiling.

**Storage** Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage.

**Concentration** 7.7 mg/ml

## GENE INFORMATION

**Gene Name** [BRD4 bromodomain containing 4 \[ Homo sapiens \]](#)

**Official Symbol** BRD4

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

**Gene ID** [23476](#)

**mRNA Refseq** [NM\\_014299](#)

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|----------------------------|------------------|
| <b>Protein Refseq</b>      | NP_055114        |
| <b>MIM</b>                 | 608749           |
| <b>UniProt ID</b>          | O60885           |
| <b>Chromosome Location</b> | 19               |
| <b>Function</b>            | protein binding; |

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