

Recombinant Human BRD7, GST-tagged

Cat. No. BRD7-14H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human BRD7 (129aa-236aa) fused with GST tag at N-terminal was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	129-236 a.a.
Description	Bromodomain-containing protein 7 (BRD7) 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). BRD7 interacts with several proteins, including DVL1, PTPN13, IRF2 and HNRPUL1 and functions in the regulation of transcriptional activation and chromatin remodeling. Specifically, BRD7 has been shown to bind dishevelled-1 (DVL1) and enhance Wnt signaling via inhibition of GSK3β. BRD7 also associates with histones and E1B-AP5. In particular, it binds acetylated histone peptides, most notably H3 peptide acetylated at Lys14. BRD7 also

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inhibits G1-S progression by transcriptional regulation of molecules in the Ras and Rb pathways. BRD7 also suppresses tumorigenicity through binding and acetylation of p53 that results in efficient recruitment of p53 to target promoters and subsequent oncogene-induced senescence.

Form	25 mM Tris pH 7.4, 150 mM NaCl and 5% glycerol
Molecular Mass	39 kDa
Applications	Binding assays, inhibitor screening, and selectivity profiling.
Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 centigrade to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage.
Concentration	1.4 mg/ml

GENE INFORMATION

Gene Name	BRD7 bromodomain containing 7 [Homo sapiens]
Official Symbol	BRD7
Synonyms	BP75; NAG4; CELTIX1; bromodomain-containing protein 7; 75 kDa bromodomain protein; protein CELTIX-1
Gene ID	29117
mRNA Refseq	NM_013263
Protein Refseq	NP_037395

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UniProt ID	Q9NPI1
Chromosome Location	16q12
Pathway	Wnt Signaling Pathway NetPath, organism-specific biosystem
Function	histone binding; lysine-acetylated histone binding; p53 binding

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