Active Recombinant Human BRD2, His&FLAG-tagged

Cat. No. BRD2-35H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human BRD2 corresponding to amino acids 71-194 that contains the bromodomain sequences of BRD2 (accession number NP_005095.1) was expressed in E. coli and contains an N-terminal His tag and C-terminal FLAG tag.
Species	Human
Source	E.coli
ProteinLength	71-194 a.a.
Description	Bromodomain-containing protein 2 (BRD2), also known as RING3, 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 in Drosophila, a gene required maternally for proper expression of other homeotic genes, such as Ubx, which is involved in pattern formation. BRD2 causes elevated protein kinase activity in leukemias. Transgenic mice overexpressing BRD2 in the lymphoid system develop

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	diffuse large-cell lymphoma. BRD2 has been shown to interact with E2F1 and with histone H4 acetylated at Lys12 via its two bromodomains. BRD2 may play a role in spermatogenesis or folliculogenesis. Genetic evidence links the BRD2 gene to both juvenile myoclonic epilepsy and photoparoxysomal responses.
Form	25 mM HEPES pH 7.5, 150 mM NaCl and 5% glycerol.
Bio-activity	Binding specificity for acetylated H4K5, H4K5/8, H4K5/12, H4K8/12, H4K12/16, H4K12/16/20 and H4K5/8/12/16.
Molecular Mass	20.78 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	5.3 mg/ml

GENE INFORMATION

Gene Name	BRD2 bromodomain containing 2 [Homo sapiens]
Official Symbol	BRD2
Synonyms	BRD2; bromodomain containing 2; bromodomain-containing protein 2; D6S113E; FSRG1; KIAA9001; NAT; RING3; O27.1.1; bromodomain-containing 2; really interesting new gene 3 protein; female sterile homeotic-related gene 1; FSH; RNF3; FLJ31942; DKFZp686N0336;

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Gene ID	6046
mRNA Refseq	NM_001113182
Protein Refseq	NP_001106653
MIM	601540
UniProt ID	P25440
Chromosome Location	6p21.3
Pathway	Regulation of retinoblastoma protein, organism-specific biosystem;
Function	protein serine/threonine kinase activity;

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