Recombinant BRD2 protein



Catalog No: 82032, 82632 Expressed In: Baculovirus **Quantity:** 20, 1000 µg **Source:** Human

Buffer Contents: Recombinant BRD2 protein is supplied in 25 mM HEPES pH 7.5, 300 mM NaCl, 20% glycerol, 0.04% Triton X-100, 0.5 mM TCEP.

Background: 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 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.

Protein Details: Recombinant BRD2 protein that includes full length of human BRD2 protein (accession number NP_001106653.1) was expressed in Sf9 cells and contains an N-terminal His and FLAG tag with a molecular weight of 92.5 kDa. The purity of the protein is \geq 95% by SDS-PAGE.

Application Notes: This product was manufactured as described in Protein Details. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for this product is shown.

Storage and Guarantee: 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. This product is guaranteed for 6 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.

BRD2



Recombinant BRD2 protein

10% SDS-PAGE Coomassie staining

MW: 92.5 kDa

Purity: ≥ 95%



HTRF Assay for Recombinant BRD2 activity

3 μ M histone peptide H4K5/8/12/16(ac4) was incubated with BRD2 in reaction buffer including 50 mM HEPES-NaOH pH 7.0, 0.1% BSA for 1 hour at room temperature. Anti-FLAG antibody was used to detect reaction products. All the operations and reactions were performed at room temperature. HTRF assay was used for detection.



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