

BRD2 recombinant protein

Recombinant BRD2 (71-194) protein

CATALOG #
AAA59686

HOST
E Coli

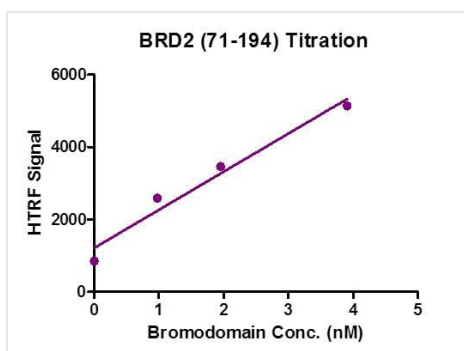
PRODUCT SYNONYMS

BRD2; Recombinant BRD2 (71-194) protein; FSH; NAT; RNF3; FSRG1; RING3; D6S113E; BRD2 recombinant protein

PRODUCT SPECIFICATIONS

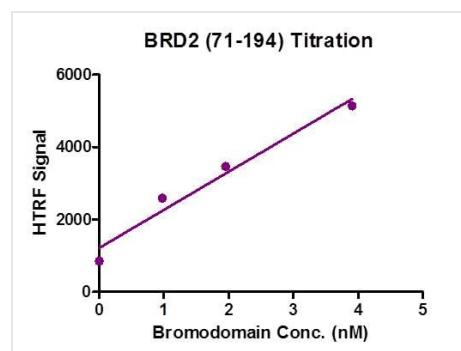
Host	E Coli
Purity/Purification	The recombinant protein is >85% pure by SDS-PAGE.
Form/Format	Recombinant BRD2 (71-194) protein was expressed in E Coli cells and is supplied in 25mM Tris-HCl pH8.0, 300mM NaCl, 10% glycerol, and 0.5mM TCEP.
Protein Species	Human
Tag	DYKDDDDK-Tag, His-Tag
Notes	Recombinant BRD2 (71-194) is suitable for use in binding assays, inhibitor screening, and selectivity profiling.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 degree C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. Shipping Temp: Dry Ice

IMAGES



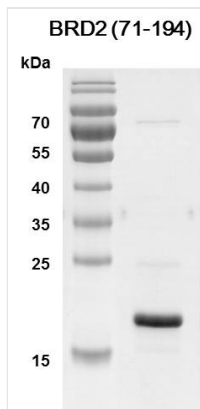
Application Data

HTRF assay for BRD2 (71-194) activity 3 ?M histone H4K5/8/12/16(ac4) peptide was incubated with different concentrations of BRD2 (71-194) protein in a 10 ?l reaction system containing 50 mM HEPES-NaOH pH 7.4, 0.1% BSA for 1 hour, then 10 ?l DYKDDDDK antibody and SA-XL665 mixture (each 1:100 dilution in the reaction buffer) was added to each reaction system and incubated for 30 min. All the operations and reactions were performed at room temperature. HTRF assay was used for detection.



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SDS-PAGE

Recombinant BRD2 (71-194) protein gel. BRD2 (71-194) protein was run on a 12.5% SDS-PAGE gel and stained with Coomassie blue. MW: 20.8 kDa Purity: > 85%

ADDITIONAL INFORMATION

Related Product Information for BRD2 recombinant protein

Short Description: The peptide 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 DYKDDDDK tag with an observed molecular weight of 20.78 kDa. It shows binding specificity for acetylated H4K5, H4K5/8, H4K5/12, H4K8/12, H4K12/16, H4K12/16/20 and H4K5/8/12/16. 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 photoparoxysmal responses. Recombinant BRD2 (71-194) can be used in binding assays and inhibitor screening.

Background: BRD2 (Bromodomain-containing protein 2) 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 photoparoxysmal responses.

Product Categories/Family for BRD2 recombinant protein

[Recombinant Proteins](#); [Bromodomain](#)

NCBI AND UNIPROT INFORMATION

Molecular Weight

Molecular weight of 20.78kDa

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

