Datasheet for ABIN2669690

BRD2 Protein (AA 71-194) (His tag,DYKDDDDK Tag)

2 Images

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Overview

Quantity:	100 µg
Target:	BRD2
Protein Characteristics:	AA 71-194
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This BRD2 protein is labelled with His tag,DYKDDDDK Tag.
Application:	Binding Studies (Bind), Screening Assay (ScA)

Product Details

Characteristics:	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 FLAG 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.

Target Details

Target:	BRD2
Alternative Name:	BRD2 (BRD2 Products)
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

Target Details

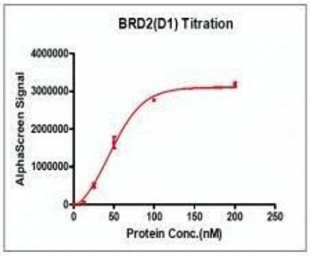
	Terminal) domain. BRDs associate with chromatin through their bromodomains that recognize acetylated histone lysine residues. Bromodomains function as 'readers' of these epigenetic histone marks and regulate chromatin structure and gene expression by linking associated proteins to the acetylated nucleosomal 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.
Molecular Weight:	20.78 kDa
Pathways:	Chromatin Binding, SARS-CoV-2 Protein Interactome, The Global Phosphorylation Landscape of SARS-CoV-2 Infection

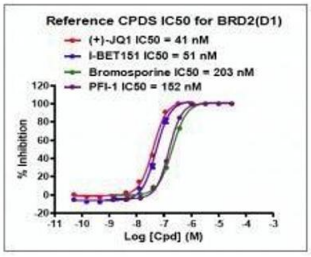
Application Details

Application Notes:	Recombinant BRD2 (71-194) is suitable for use in binding assays, inhibitor screening, and selectivity profiling.
Restrictions:	For Research Use only

Handling

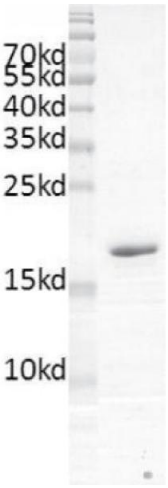
Handling Advice:	Avoid repeated freeze/thaw cycles and keep on ice when not in storage.
Storage:	-80 °C
Storage Comment:	Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation.





Screening Assay

Image 1. Recombinant BRD2 (71-194) activity using AlphaScreen. BRD2 (71-194) titration and inhibition were assessed using an AlphaScreen® assay. Titration curves were generated to show signal response in the presence of modified peptide substrate at increasing protein concentrations. An IC50 dose response assessment of reference compounds JQ1, I-BET151, Bromosporine and PFI-1 is also shown. This data was generated and kindly provided courtesy of ChemPartner.



Western Blotting

Image 2. Recombinant BRD2 (71-194) protein gel. BRD2 (71-194) protein was run on an SDS-PAGE gel and stained with Coomassie blue.