

Datasheet for ABIN2669694

**BRD4 Protein (AA 333-460) (His tag,DYKDDDDK Tag)**[Go to Product page](#)**2** Images

## Overview

Quantity:	100 µg
Target:	BRD4
Protein Characteristics:	AA 333-460
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This BRD4 protein is labelled with His tag,DYKDDDDK Tag.
Application:	Binding Studies (Bind), Screening Assay (ScA)

## Product Details

Characteristics:	The peptide corresponding to amino acids 333-460 that contains the bromodomain sequences of BRD4 (accession number NP_490597.1) was expressed in E. coli and contains an N-terminal His tag and C-terminal FLAG tag with an observed molecular weight of 20.9 kDa.
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## Target Details

Target:	BRD4
Alternative Name:	BRD4 ( <a href="#">BRD4 Products</a> )
Background:	Bromodomain-containing protein 4 (BRD4) 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

## Target Details

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 gene in *Drosophila*, a gene required maternally for proper expression of other homeotic genes, such as *Ubx*, which is involved in pattern formation. BRD4 has been identified recently as a therapeutic target in many cancers, including acute myeloid leukemia, multiple myeloma, Burkitt's lymphoma, NUT midline carcinoma, colon cancer, and breast cancer. BRD4 regulates the transcription of oncogenes, HIV, and human papilloma virus (HPV). It has been shown to bind and phosphorylate RNA pol II, which implicates its involvement in the regulation of eukaryotic transcription.

Molecular Weight:	20.9 kDa
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Pathways:	<a href="#">Chromatin Binding</a> , <a href="#">SARS-CoV-2 Protein Interactome</a>
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## Application Details

Application Notes:	Recombinant BRD4 (333-460) is suitable for use in binding assays, inhibitor screening, and selectivity profiling.
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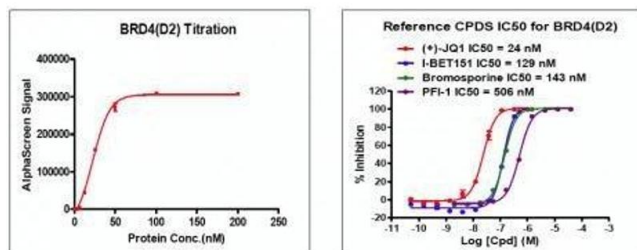
Restrictions:	For Research Use only
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## Handling

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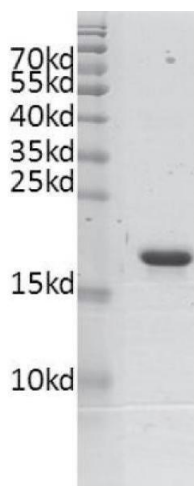
Storage:	-80 °C
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Storage Comment:	Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation.
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### Screening Assay

**Image 1.** Recombinant BRD4 (333-460) activity using AlphaScreen. BRD4 (333-460) 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 IC<sub>50</sub> 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 BRD4 (333-460) protein gel. BRD4 (333-460) protein was run on an SDS-PAGE gel and stained with Coomassie blue.