Datasheet for ABIN2669724

BRD7 Protein (AA 129-236) (GST tag)

2 Images

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Overview

Quantity:	100 µg
Target:	BRD7
Protein Characteristics:	AA 129-236
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This BRD7 protein is labelled with GST tag.
Application:	Binding Studies (Bind), Screening Assay (ScA)

Product Details

Characteristics:	The peptide corresponding to amino acids 129 - 236 that contains the bromodomain sequences of BRD7 (accession number NM_013263.4) was expressed in E. coli and contains an N-terminal GST tag with a molecular weight of 39 kDa. It shows binding specificity for acetylated H3K9, H3K14, H4K8, H4K12 and H4K16.

Target Details

Target:	BRD7
Alternative Name:	BRD7 (BRD7 Products)
Background:	Bromodomain-containing protein 7 (BRD7) 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

Target Details

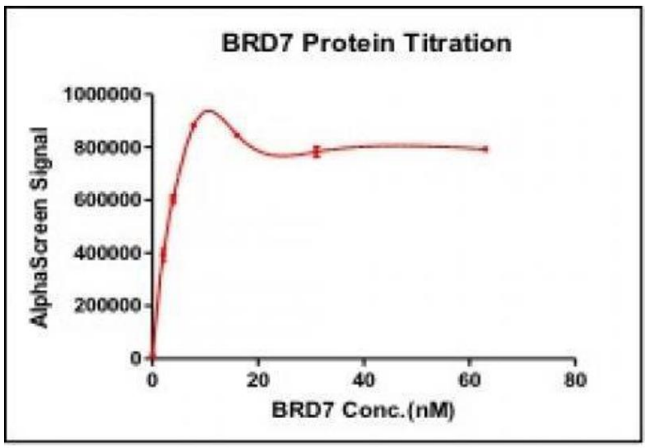
	residues. Bromodomains function as 'readers' of these epigenetic histone marks and regulate chromatin structure and gene expression by linking associated proteins to the acetylated nucleosomal targets. The ET domain functions as a protein binding motif and exerts atypical serine-kinase activity. The 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). BRD7 interacts with several proteins, including DVL1, PTPN13, IRF2 and HNRPUL1 and functions in the regulation of transcriptional activation and chromatin remodeling. Specifically, BRD7 has been shown to bind dishevelled-1 (DVL1) and enhance Wnt signaling via inhibition of GSK3β. BRD7 also associates with histones and E1B-AP5. In particular, it binds acetylated histone peptides, most notably H3 peptide acetylated at Lys14. BRD7 also inhibits G1-S progression by transcriptional regulation of molecules in the Ras and Rb pathways. BRD7 also suppresses tumorigenicity through binding and acetylation of p53 that results in efficient recruitment of p53 to target promoters and subsequent oncogene-induced senescence.
Molecular Weight:	39 kDa

Application Details

Application Notes:	Recombinant BRD7 (129-236), GST-tag is suitable for use in binding assays, inhibitor screening, and selectivity profiling.
Restrictions:	For Research Use only

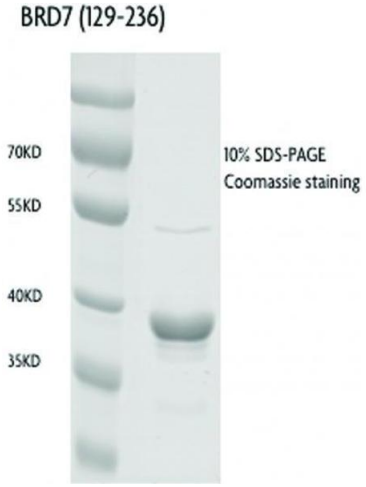
Handling

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.



Activity Assay

Image 1. Recombinant BRD7 (129-236), GST-tag activity using AlphaLISA. BRD7 (129-236), GST-tag was used in an AlphaLISA assay to determine enzyme linearity. This data was generated and kindly provided courtesy of ChemPartner.



Western Blotting

Image 2. Recombinant BRD7 (129-236), GST-tag protein gel. BRD7 (129-236), GST-tag protein was run on an SDS-PAGE gel and stained with Coomassie blue.

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