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Datasheet for ABIN3137236  
**BRD4 Protein (AA 1-1400) (His tag)**

1 Image

Overview

Quantity:	1 mg
Target:	BRD4
Protein Characteristics:	AA 1-1400
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This BRD4 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	<p>MSTESGPGTR LRNLPMGDG LETSQMSTTQ AQAQPQANA ASTNPPPPET SNPNKPKRQT          NQLQYLLRVV LKTLWKHQFA WPFQQPVDVAV KLNLPDYKYI IKTPMDMGTI KKRENNYYW          NAQECIQDFN TMFTNCYIYN KPGDDIVLMA EALEKLFLQK INELPTEETE IMIVQAKGRG          RGRKETGAAK PGVSTVPNTT QASTSPQTQT PQQNPPPPVQ ATTHPFPVAVT PDLIAQPPVM          TMVPPQPLQT PSPVPPQPPP PPAPVPQPVQ SHPPPIATTP QPVKTKKGVK RKADTTTTPTT          IDPIHEPPSL APEPKTAKLG PRRESSRPVK PPKKDVPSQ QHPGPEKSSK ISEQLKCCSG          ILKEMFAKKH AAYAWPFYKP VDVEALGLHD YCDIHKHPMD MSTIKSKLES REYRDAQEFG          ADVRLMFSNC YKYNPPDHEV VAMARKLQDV FEMRFAKMPD EPEEPVVTVS SPAVPPPTKV          VAPPSSSDSS SDSSSDSDSS TDDSEEERAQ RLAELQEQLK AVHEQLAALS QPQQNKPKKK          EKDKKEKKKE KHKKKEEVEE NKKSKTKELP PPKTKKNNSS NSNVSKKEPV PTKTKPPPTY          ESEEDKCKP MSYEEKRQLS LDINKLPGEK LGRVVHIIQS REPSLKNSNP DEIEIDFETL          KPSTLRELER YVTSCLRKKR KPQAEKVDVI AGSSKMKGFS SSESESTSES SSSDSESET</p>
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EMAPKSKKKG HTGRDQKKHH HHHHPQMCPA PAPVPQPPPP PPQQPPPPPP PQQQQQPPPP  
PPPPPSMPQQ TAPAMKSSPP PFITAQVPVL EPQLPGSVFD PIGHFTQPIL HLPQPELPPH  
LPQPPEHSTP PHLNQHAVVS PPALHNALPQ QPSRPSNRAA ALPPKPTRPP AVSPALAQPP  
LLQPMPMAQP PQVLEDEEP PAPPLTSMQM QLYLQQLQKV QPPTLLPSV KVQSQPPPPPL  
PPPPHPSVQQ QQLQPQPPPP PPPQPQPPPP QHQPPPRPV HLPSPMPSAH IQQPPPPPGQ  
QPTHPPPGQQ PPPPQPAKPQ QVIQHHPSPR HHKSDPYASG HLREAPSPLM IHSPQMPQFQ  
SLTHQSPPQQ NVQPKKQVKG RAEPQPPGPV MGQGGCQPPA SPAAVPMLSQ ELRPPSVVQP  
QPLVVVKEEK IHSPHIRSEP FSTSLRPEPP KHPENIKAPV HLPQRPEMKP VDIGRPVIRP  
PEQSAPPPGA PDKDKQKQEP KTPVAPKKDL KIKNMGSWAS LVQKHPTTPS STAKSSSDSF  
EHFRRAAREK EEREKALKAQ AEHAEKEKER LRQERMRSRE DEDALEQARR AHEEARRRQE  
QQQQQQQRQ EQQQQQQAA AVAAASAPQA QSSQPQSMMLD QQRELARKRE QERRRREAMA  
ATIDMNFQSD LLSIFEENLF

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Brd4 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

## Product Details

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Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: <ol style="list-style-type: none"><li>1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.</li><li>2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.</li></ol>
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

## Target Details

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Target:	BRD4
Alternative Name:	Brd4 ( <a href="#">BRD4 Products</a> )
Background:	<p>Chromatin reader protein that recognizes and binds acetylated histones and plays a key role in transmission of epigenetic memory across cell divisions and transcription regulation. Remains associated with acetylated chromatin throughout the entire cell cycle and provides epigenetic memory for postmitotic G1 gene transcription by preserving acetylated chromatin status and maintaining high-order chromatin structure. During interphase, plays a key role in regulating the transcription of signal-inducible genes by associating with the P-TEFb complex and recruiting it to promoters: BRD4 is required to form the transcriptionally active P-TEFb complex by displacing negative regulators such as HEXIM1 and 7SKsnRNA complex from P-TEFb, thereby transforming it into an active form that can then phosphorylate the C-terminal domain (CTD) of RNA polymerase II. Promotes phosphorylation of 'Ser-2' of the C-terminal domain (CTD) of RNA polymerase II. In addition to acetylated histones, also recognizes and binds acetylated RELA, leading to further recruitment of the P-TEFb complex and subsequent activation of NF-kappa-B. Also acts as a regulator of p53/TP53-mediated transcription: following phosphorylation by CK2, recruited to p53/TP53 specific target promoters. {ECO:0000269 PubMed:10938129, ECO:0000269 PubMed:16109376}.</p>
Molecular Weight:	156.8 kDa Including tag.
UniProt:	<a href="#">Q9ESU6</a>
Pathways:	<a href="#">Chromatin Binding</a> , <a href="#">SARS-CoV-2 Protein Interactome</a>

## Application Details

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**Application Notes:** In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

**Comment:** Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

**Restrictions:** For Research Use only

## Handling

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**Format:** Liquid

**Buffer:** 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

**Handling Advice:** Avoid repeated freeze-thaw cycles.

**Storage:** -80 °C

**Storage Comment:** Store at -80°C.

**Expiry Date:** Unlimited (if stored properly)

## Images

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**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process