

Datasheet for ABIN3090155
BRD2 Protein (AA 1-801) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	BRD2
Protein Characteristics:	AA 1-801
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This BRD2 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	<p>MLQNVTPHNK LPGEGNAGLL GLGPEAAAPG KRIRKPSLLY EGFESPTMAS VPALQLTPAN</p> <p>PPPPEVSNPK KPGRVTNQLQ YLHKVVMKAL WKHQFAWPFR QPVDAVKLGL PDYHKIIKQP</p> <p>MDMGTIKRR L ENNYWAASE CMQDFNTMFT NCYIYNKPTD DIVLMAQTLE KIFLQKVASM</p> <p>PQEEQELVVT IPKNSHKKGA KLAALQGSVT SAHQVPAVSS VSHTALYTPP PEIPTTVLNI</p> <p>PHPSVISSPL LKSLHSAGPP LLAVTAAPPA QPLAKKKGVK RKADTTTTP TAILAPGSPA</p> <p>SPPGSLEPKA ARLPPMRRES GRPIKPPRKD LPDSQQQHQS SKKGKLSEQL KHCNGILKEL</p> <p>LSKKHAAYAW PFYKVPDASA LGLHDYHDII KHPMDLSTVK RKMENRDYRD AQEFAADVRL</p> <p>MFSNCYKYNP PDHDVVAMAR KLQDVFEFRY AKMPDEPLEP GPLPVSTAMP PGLAKSSSES</p> <p>SSEESSSESS SEEEEEDEEE DEEEEESESS DSEEEARHL AELQEQLRAV HEQLAALSQG</p> <p>PISKPKRKRE KKEKKKKRKA EKHRGRAGAD EDDKGPRAPR PPQPKKSKKA SGSGGGSAAAL</p> <p>GPSGFGPSGG SGTKLPKKAT KTAPPALPTG YDSEEEEEESR PMSYDEKRQL SLDINKLPGE</p>

KLGRVVHIIQ AREPSLRDSN PEEIEIDFET LKPSTLRELE RYVLSCLRKK PRKPYTIKKP
VGKTKHEELAL EKKRELEKRL QDVSGQLNST KKPPKKANEK TESSAQQVA VSRLSASSSS
SDSSSSSSSS SSSDTSDSDS G

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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 try to ensure that you receive soluble 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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:

One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression

Product Details

System (AliCE®).

Purity: > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade: custom-made

Target Details

Target: BRD2

Alternative Name: BRD2 ([BRD2 Products](#))

Background: Bromodomain-containing protein 2 (O27.1.1),FUNCTION: Chromatin reader protein that specifically recognizes and binds histone H4 acetylated at 'Lys-5' and 'Lys-12' (H4K5ac and H4K12ac, respectively), thereby controlling gene expression and remodeling chromatin structures (PubMed:18406326, PubMed:17848202, PubMed:17148447, PubMed:20709061, PubMed:20048151, PubMed:20871596). Recruits transcription factors and coactivators to target gene sites, and activates RNA polymerase II machinery for transcriptional elongation (PubMed:28262505). Plays a key role in genome compartmentalization via its association with CTCF and cohesin: recruited to chromatin by CTCF and promotes formation of topologically associating domains (TADs) via its ability to bind acetylated histones, contributing to CTCF boundary formation and enhancer insulation (PubMed:35410381). Also recognizes and binds acetylated non-histone proteins, such as STAT3 (PubMed:28262505). Involved in inflammatory response by regulating differentiation of naive CD4(+) T-cells into T-helper Th17: recognizes and binds STAT3 acetylated at 'Lys-87', promoting STAT3 recruitment to chromatin (PubMed:28262505). In addition to acetylated lysines, also recognizes and binds lysine residues on histones that are both methylated and acetylated on the same side chain to form N6-acetyl-N6-methyllysine (Kacme), an epigenetic mark of active chromatin associated with increased transcriptional initiation (PubMed:37731000). Specifically binds histone H4 acetyl-methylated at 'Lys-5' and 'Lys-12' (H4K5acme and H4K12acme, respectively) (PubMed:37731000). {ECO:0000269|PubMed:17148447, ECO:0000269|PubMed:17848202, ECO:0000269|PubMed:18406326, ECO:0000269|PubMed:20048151, ECO:0000269|PubMed:20709061, ECO:0000269|PubMed:20871596, ECO:0000269|PubMed:28262505, ECO:0000269|PubMed:35410381, ECO:0000269|PubMed:37731000}.

Molecular Weight: 88.1 kDa

UniProt: [P25440](#)

Pathways: [Chromatin Binding](#), [SARS-CoV-2 Protein Interactome](#), [The Global Phosphorylation Landscape of](#)

Target Details

SARS-CoV-2 Infection

Application Details

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:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.</p> <p>During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!</p>
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	<p>The buffer composition is at the discretion of the manufacturer.</p> <p>Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol Might differ depending on protein.</p>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months