Datasheet for ABIN3091883

Retinoblastoma Binding Protein 8 Protein (RBBP8) (AA 1-897) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	Retinoblastoma Binding Protein 8 (RBBP8)
Protein Characteristics:	AA 1-897
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Retinoblastoma Binding Protein 8 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MNISGSSCGS PNSADTSSDF KDLWTKLKEC HDREVQGLQV KVTKLKQERI LDAQRLEEFF TKNQQLREQQ KVLHETIKVL EDRLRAGLCD RCAVTEEHMR KKQQEFENIR QQNLKLITEL MNERNTLQEE NKKLSEQLQQ KIENDQQHQA AELECEEDVI PDSPITAFSF SGVNRLRRKE NPHVRYIEQT HTKLEHSVCA NEMRKVSKSS THPQHNPNEN EILVADTYDQ SQSPMAKAHG TSSYTPDKSS FNLATVVAET LGLGVQEESE TQGPMSPLGD ELYHCLEGNH KKQPFEESTR NTEDSLRFSD STSKTPPQEE LPTRVSSPVF GATSSIKSGL DLNTSLSPSL LQPGKKKHLK TLPFSNTCIS RLEKTRSKSE DSALFTHHSL GSEVNKIIIQ SSNKQILINK NISESLGEQN RTEYGKDSNT DKHLEPLKSL GGRTSKRKKT EEESEHEVSC PQASFDKENA FPFPMDNQFS MNGDCVMDKP LDLSDRFSAI QRQEKSQGSE TSKNKFRQVT LYEALKTIPK GFSSSRKASD GNCTLPKDSP GEPCSQECII LQPLNKCSPD NKPSLQIKEE NAVFKIPLRP RESLETENVL DDIKSAGSHE PIKIQTRSDH GGCELASVLQ LNPCRTGKIK SLQNNQDVSF ENIQWSIDPG

ADLSQYKMDV TVIDTKDGSQ SKLGGETVDM DCTLVSETVL LKMKKQEQKG EKSSNEERKM NDSLEDMFDR TTHEEYESCL ADSFSQAADE EEELSTATKK LHTHGDKQDK VKQKAFVEPY FKGDERETSL QNFPHIEVVR KKEERRKLLG HTCKECEIYY ADMPAEEREK KLASCSRHRF RYIPPNTPEN FWEVGFPSTQ TCMERGYIKE DLDPCPRPKR RQPYNAIFSP KGKEQKT

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.

Product Details

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	Retinoblastoma Binding Protein 8 (RBBP8)
Alternative Name:	RBBP8 (RBBP8 Products)
Background:	DNA endonuclease RBBP8 (EC 3.1.-.-) (CtBP-interacting protein) (CtIP) (Retinoblastoma-binding protein 8) (RBBP-8) (Retinoblastoma-interacting protein and myosin-like) (RIM) (Sporulation in the absence of SPO11 protein 2 homolog) (SAE2),FUNCTION: Endonuclease that cooperates with the MRE11-RAD50-NBN (MRN) complex in DNA-end resection, the first step of double-strand break (DSB) repair through the homologous recombination (HR) pathway (PubMed:17965729, PubMed:19202191, PubMed:19759395, PubMed:20064462, PubMed:26721387). HR is restricted to S and G2 phases of the cell cycle and preferentially repairs DSBs resulting from replication fork collapse (PubMed:17965729, PubMed:19202191). Key determinant of DSB repair pathway choice, as it commits cells to HR by preventing classical non-homologous end-joining (NHEJ) (PubMed:19202191). Functions downstream of the MRN complex and ATM, promotes ATR activation and its recruitment to DSBs in the S/G2 phase facilitating the generation of ssDNA (PubMed:16581787, PubMed:17965729, PubMed:19759395, PubMed:20064462). Component of the BRCA1-RBBP8 complex that regulates CHEK1 activation and controls cell cycle G2/M checkpoints on DNA damage (PubMed:15485915, PubMed:16818604). During immunoglobulin heavy chain class-switch recombination, promotes microhomology-mediated alternative end joining (A-NHEJ) and plays an essential role in chromosomal translocations (By similarity). Binds preferentially to DNA Y-junctions and to DNA substrates with blocked ends and promotes intermolecular DNA bridging (PubMed:30601117). {ECO:0000250|UniProtKB:Q80YR6, ECO:0000269|PubMed:15485915, ECO:0000269|PubMed:16581787, ECO:0000269|PubMed:16818604, ECO:0000269|PubMed:17965729, ECO:0000269|PubMed:19202191, ECO:0000269|PubMed:19759395, ECO:0000269|PubMed:20064462, ECO:0000269|PubMed:26721387, ECO:0000269|PubMed:30601117}.
Molecular Weight:	101.9 kDa
UniProt:	Q99708

Target Details

Pathways:	Cell Division Cycle, DNA Damage Repair

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:	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!
Restrictions:	For Research Use only

Handling

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

