

Datasheet for ABIN3092212

DYRK2 Protein (AA 1-601) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	DYRK2
Protein Characteristics:	AA 1-601
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DYRK2 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	<p>MLTRKPSAAA PAAYPTGRGG DSAVRQLQAS PGLGAGATRS GVG TGPPSPI ALPPLRASNA AAAAHTIGGS KHTMNDHLHV GSHAHGQIQV QQLFEDNSNK RTVLT TQPNG LTTVGKTGLP VVPERQLDSI HRRQGSSTSL KSMEGMGKVK ATPMTPEQAM KQYMQKLTA F EHHEIFSYPE IYFLGLNAKK RQGMTGGPNN GGYDDDQGSY VQVPHDHVAY RYEV LKVIGK GSFGQVVKAY DHKVHQHVAL KMRVNEKRFH RQAAEEIRIL EHLRKQDKDN TMNVIHMLEN FTFRNHICMT FELL SMNLYE LIKKNKFQGF SLPLVRKFAH SILQCLDALH KNRIHCDLK PENILLKQQG RSGIKVIDFG SSCYEHQRVY TYIQSRFYRA PEVILGARYG MPIDMWSLGC ILAELLTGYP LLPGEDEGDQ LACMIELLGM PSQKLLDASK RAKNFVSSKG YPRYCTVTTL SDGSVVLNGG RSRRGKLRGP PESREWGNAL KGCDDPLFLD FLKQCLEWDP AVRMTPGQAL RHPWLRRRLP KPPTGEKTSV KRITESTGAI TSISKLPPPS SSASKLRTNL AQMTDANGNI QQRTVL PKLV S</p> <p>Sequence without tag. The proposed Strep-Tag is based on experience s with the expression</p>

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 System (ALiCE®).

Purity:

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

Grade:

custom-made

Target Details

Target:	DYRK2
Alternative Name:	DYRK2 (DYRK2 Products)
Background:	<p>Dual specificity tyrosine-phosphorylation-regulated kinase 2 (EC 2.7.12.1),FUNCTION: Serine/threonine-protein kinase involved in the regulation of the mitotic cell cycle, cell proliferation, apoptosis, organization of the cytoskeleton and neurite outgrowth. Functions in part via its role in ubiquitin-dependent proteasomal protein degradation. Functions downstream of ATM and phosphorylates p53/TP53 at 'Ser-46', and thereby contributes to the induction of apoptosis in response to DNA damage. Phosphorylates NFATC1, and thereby inhibits its accumulation in the nucleus and its transcription factor activity. Phosphorylates EIF2B5 at 'Ser-544', enabling its subsequent phosphorylation and inhibition by GSK3B. Likewise, phosphorylation of NFATC1, CRMP2/DPYSL2 and CRMP4/DPYSL3 promotes their subsequent phosphorylation by GSK3B. May play a general role in the priming of GSK3 substrates. Inactivates GYS1 by phosphorylation at 'Ser-641', and potentially also a second phosphorylation site, thus regulating glycogen synthesis. Mediates EDVP E3 ligase complex formation and is required for the phosphorylation and subsequent degradation of KATNA1. Phosphorylates TERT at 'Ser-457', promoting TERT ubiquitination by the EDVP complex. Phosphorylates SIAH2, and thereby increases its ubiquitin ligase activity. Promotes the proteasomal degradation of MYC and JUN, and thereby regulates progress through the mitotic cell cycle and cell proliferation. Promotes proteasomal degradation of GLI2 and GLI3, and thereby plays a role in smoothened and sonic hedgehog signaling. Plays a role in cytoskeleton organization and neurite outgrowth via its phosphorylation of DCX and DPYSL2. Phosphorylates CRMP2/DPYSL2, CRMP4/DPYSL3, DCX, EIF2B5, EIF4EBP1, GLI2, GLI3, GYS1, JUN, MDM2, MYC, NFATC1, p53/TP53, TAU/MAPT and KATNA1. Can phosphorylate histone H1, histone H3 and histone H2B (in vitro). Can phosphorylate CARHSP1 (in vitro).</p> <p>{ECO:0000269 PubMed:11311121, ECO:0000269 PubMed:12588975, ECO:0000269 PubMed:14593110, ECO:0000269 PubMed:15910284, ECO:0000269 PubMed:16511445, ECO:0000269 PubMed:16611631, ECO:0000269 PubMed:17349958, ECO:0000269 PubMed:18455992, ECO:0000269 PubMed:18599021, ECO:0000269 PubMed:19287380, ECO:0000269 PubMed:22307329, ECO:0000269 PubMed:22878263, ECO:0000269 PubMed:23362280, ECO:0000269 PubMed:9748265}.</p>
Molecular Weight:	66.7 kDa
UniProt:	Q92630
Pathways:	Regulation of Carbohydrate Metabolic Process

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.

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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