

Datasheet for ABIN3134669

CIITA Protein (AA 1-1155) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	CIITA
Protein Characteristics:	AA 1-1155
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CIITA protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AlIcE®
Sequence:	<p>MNHFQAILAQ VQTLSSQKP RQVRALLDGL LEEELLSREY HCALLHEPDG DALARKISLT</p> <p>LLEKGDLDLT FLSWVCNSLQ APTVERGTSY RDHGDHSLCA TMDLGSPEGS YLELLNSDAD</p> <p>PLHLYHLYDQ MDLAGEEEIE LSSEPDTDTI NCDQFSKLLQ DMELDEETRE AYANIAELDQ</p> <p>YVFQDTQLEG LSKDLFIEHI GAEEGFGENI EIPVEAGQKP QKRRFP EEHA MDSKHRKLVP</p> <p>TSRTSLNYLD LPTGHIQIFT TLPQGLWQIS GAGTGLSSVL IYHGEMPQVN QVLPSSSLSI</p> <p>PSLPESPDRP GSTSPFTPSA ADLPSMPEPA LTRVNETED TSPSPCQEGP ESSIKLPKWP</p> <p>EAVERFQHSL QDKYKALPQS PRGPLVAVEL VRARLERGSN KSQERELATP DWTERQLAHG</p> <p>GLAEVLQVVS DCRRPGETQV VAVLGKAGQG KSHWARTVSH TWACGQLLQY DVFYVPCHC</p> <p>LDRPGDTYHL RDLLCPPSLQ PLAMDDEVLD YIVRQPDRVL LILDAFEELE AQDGLLHGPC</p> <p>GSLSPEPCSL RGLLAGIFQR KLLRGCTLLL TARPRGRLAQ SLSKADAIFE VPSFSTKQAK</p> <p>TYMRHYFENS GTAGNQDKAL GLLEGQPLLC SYSHSPVVCRAVCQLSKALL EQGTEAQLPC</p>

TLTGLYVSLG GPAAQNSPPG ALVELAKLAW ELGRRHQSTL QETRFSSVEV KTWAVTQGLM
QQTLETTEAQ LAFSSFLLQC FLGAVWLAQC NEIKDKELPQ YLALTPRKKR PYDNWLEGVP
RFLAGLVFQP RAHCLGALVE PAVAAVADRK QKVLTRYLKR LKLGTLRAGR LLELLHCAHE
TQQPGIWEHV AHQLPGHLSF LGTRLTPPDV YVLGRALETA SQDFSLDLRQ TGVEPSGLGN
LVGLSCVTSF RASLSDTMAL WESLQQQGEA QLLQAAEEKF TIEPFKAKSP KDVEDLDRLV
QTQRLRNPSE DAAKDLPAIR DLKKLEFALG PILGPQAFPT LAKILPAFSS LQHLDLDSLS
ENKIGDKGVS KLSATFPQLK ALETNLNSQN NITDVGACKL AEALPALAKS LLRLSLYNNC
ICDKGAKSLA QVLPDMVSLR VMDVQFNKFT AAGAAQLASS LQKCPQVETL AMWTPTIPFG
VQEHLQQLDA RISLR

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!

Product Details

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:	CIITA
Alternative Name:	Ciita (CIITA Products)
Background:	<p>MHC class II transactivator (CIITA) (EC 2.3.1.-) (EC 2.7.11.1),FUNCTION: Essential for transcriptional activity of the HLA class II promoter, activation is via the proximal promoter (PubMed:37327784). Does not bind DNA (By similarity). May act in a coactivator-like fashion through protein-protein interactions by contacting factors binding to the proximal MHC class II promoter, to elements of the transcription machinery, or both (By similarity). Alternatively it may activate HLA class II transcription by modifying proteins that bind to the MHC class II promoter (By similarity). Also mediates enhanced MHC class I transcription, the promoter element requirements for CIITA-mediated transcription are distinct from those of constitutive MHC class I transcription, and CIITA can functionally replace TAF1 at these genes (By similarity). Activates CD74 transcription (PubMed:32855215). Exhibits intrinsic GTP-stimulated acetyltransferase activity (By similarity). Exhibits serine/threonine protein kinase activity: phosphorylates the TFIID component TAF7, the RAP74 subunit of the general transcription factor TFIIF, histone H2B at 'Ser-37' and other histones (By similarity).</p> <p>{ECO:0000250 UniProtKB:P33076, ECO:0000269 PubMed:32855215, ECO:0000269 PubMed:37327784}.</p>
Molecular Weight:	127.5 kDa
UniProt:	P79621
Pathways:	Cancer Immune Checkpoints

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