Datasheet for ABIN3096189

TYK2 Protein (AA 1-1187) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	TYK2
Protein Characteristics:	AA 1-1187
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TYK2 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Brand:	AliCE®
Sequence:	MPLRHWGMAR GSKPVGDGAQ PMAAMGGLKV LLHWAGPGGG EPWVTFSESS LTAEEVCIHI AHKVGITPPC FNLFALFDAQ AQVWLPPNHI LEIPRDASLM LYFRIRFYFR NWHGMNPREP AVYRCGPPGT EASSDQTAQG MQLLDPASFE YLFEQGKHEF VNDVASLWEL STEEEIHHFK NESLGMAFLH LCHLALRHGI PLEEVAKKTS FKDCIPRSFR RHIRQHSALT RLRLRNVFRR FLRDFQPGRL SQQMVMVKYL ATLERLAPRF GTERVPVCHL RLLAQAEGEP CYIRDSGVAP TDPGPESAAG PPTHEVLVTG TGGIQWWPVE EEVNKEEGSS GSSGRNPQAS LFGKKAKAHK AVGQPADRPR EPLWAYFCDF RDITHVVLKE HCVSIHRQDN KCLELSLPSR AAALSFVSLV DGYFRLTADS SHYLCHEVAP PRLVMSIRDG IHGPLLEPFV QAKLRPEDGL YLIHWSTSHP YRLILTVAQR SQAPDGMQSL RLRKFPIEQQ DGAFVLEGWG RSFPSVRELG AALQGCLLRA GDDCFSLRRC CLPQPGETSN LIIMRGARAS PRTLNLSQLS FHRVDQKEIT QLSHLGQGTR TNVYEGRLRV EGSGDPEEGK MDDEDPLVPG RDRGQELRVV LKVLDPSHHD IALAFYETAS

LMSQVSHTHL AFVHGVCVRG PENIMVTEYV EHGPLDVWLR RERGHVPMAW KMVVAQQLAS ALSYLENKNL VHGNVCGRNI LLARLGLAEG TSPFIKLSDP GVGLGALSRE ERVERIPWLA PECLPGGANS LSTAMDKWGF GATLLEICFD GEAPLQSRSP SEKEHFYQRQ HRLPEPSCPQ LATLTSQCLT YEPTQRPSFR TILRDLTRLQ PHNLADVLTV NPDSPASDPT VFHKRYLKKI RDLGEGHFGK VSLYCYDPTN DGTGEMVAVK ALKADCGPQH RSGWKQEIDI LRTLYHEHII KYKGCCEDQG EKSLQLVMEY VPLGSLRDYL PRHSIGLAQL LLFAQQICEG MAYLHAQHYI HRDLAARNVL LDNDRLVKIG DFGLAKAVPE GHEYYRVRED GDSPVFWYAP ECLKEYKFYY ASDVWSFGVT LYELLTHCDS SQSPPTKFLE LIGIAQGQMT VLRLTELLER GERLPRPDKC PCEVYHLMKN CWETEASFRP TFENLIPILK TVHEKYQGQA PSVFSVC

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:	TYK2
Alternative Name:	TYK2 (TYK2 Products)
Background:	Non-receptor tyrosine-protein kinase TYK2 (EC 2.7.10.2),FUNCTION: Tyrosine kinase of the non-receptor type involved in numerous cytokines and interferons signaling, which regulates cell growth, development, cell migration, innate and adaptive immunity (PubMed:8232552, PubMed:7813427, PubMed:7657660, PubMed:10995743, PubMed:10542297). Plays both structural and catalytic roles in numerous interleukins and interferons (IFN-alpha/beta) signaling (PubMed:10542297). Associates with heterodimeric cytokine receptor complexes and activates STAT family members including STAT1, STAT3, STAT4 or STAT6 (PubMed:10542297, PubMed:7638186). The heterodimeric cytokine receptor complexes are composed of (1) a TYK2-associated receptor chain (IFNAR1, IL12RB1, IL10RB or IL13RA1), and (2) a second receptor chain associated either with JAK1 or JAK2 (PubMed:7813427, PubMed:10542297, PubMed:7526154, PubMed:25762719). In response to cytokine-binding to receptors, phosphorylates and activates receptors (IFNAR1, IL12RB1, IL10RB or IL13RA1), creating docking sites for STAT members (PubMed:7526154, PubMed:7657660). In turn, recruited STATs are phosphorylated by TYK2 (or JAK1/JAK2 on the second receptor chain), form homo- and heterodimers, translocate to the nucleus, and regulate cytokine/growth factor responsive genes (PubMed:7657660, PubMed:10542297, PubMed:25762719). Negatively regulates STAT3 activity by promototing phosphorylation at a specific tyrosine that differs from the site used for signaling (PubMed:29162862). {ECO:0000269|PubMed:10542297, ECO:0000269|PubMed:10995743, ECO:0000269|PubMed:25762719, ECO:0000269|PubMed:29162862, ECO:0000269|PubMed:7526154, ECO:0000269|PubMed:7638186, ECO:0000269|PubMed:7657660,

Target Details

	ECO:0000269|PubMed:7813427, ECO:0000269|PubMed:8232552}.
Molecular Weight:	133.7 kDa
UniProt:	P29597
Pathways:	JAK-STAT Signaling, Hepatitis C

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