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PTPN4 Protein (AA 1-926) (Strep Tag)



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Overview

Quantity:	1 mg
Target:	PTPN4
Protein Characteristics:	AA 1-926
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PTPN4 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:

MTSRFRLPAG RTYNVRASEL ARDRQHTEVV CNILLLDNTV QAFKVNKHDQ GQVLLDVVFK
HLDLTEQDYF GLQLADDSTD NPRWLDPNKP IRKQLKRGSP YSLNFRVKFF VSDPNKLQEE
YTRYQYFLQI KQDILTGRLP CPSNTAALLA SFAVQSELGD YDQSENLSGY LSDYSFIPNQ
PQDFEKEIAK LHQQHIGLSP AEAEFNYLNT ARTLELYGVE FHYARDQSNN EIMIGVMSGG
ILIYKNRVRM NTFPWLKIVK ISFKCKQFFI QLRKELHESR ETLLGFNMVN YRACKNLWKA
CVEHHTFFRL DRPLPPQKNF FAHYFTLGSK FRYCGRTEVQ SVQYGKEKAN KDRVFARSPS
KPLARKLMDW EVVSRNSISD DRLETQSLPS RSPPGTPNHR NSTFTQEGTR LRPSSVGHLV
DHMVHTSPSE VFVNQRSPSS TQANSIVLES SPSQETPGDG KPPALPPKQS KKNSWNQIHY
SHSQQDLESH INETFDIPSS PEKPTPNGGI PHDNLVLIRM KPDENGRFGF NVKGGYDQKM
PVIVSRVAPG TPADLCVPRL NEGDQVVLIN GRDIAEHTHD QVVLFIKASC ERHSGELMLL
VRPNAVYDVV EEKLENEPDF QYIPEKAPLD SVHQDDHSLR ESMIQLAEGL ITGTVLTQFD
QLYRKKPGMT MSCAKLPQNI SKNRYRDISP YDATRVILKG NEDYINANYI NMEIPSSSII

NQYIACQGPL PHTCTDFWQM TWEQGSSMVV MLTTQVERGR VKCHQYWPEP TGSSSYGCYQ VTCHSEEGNT AYIFRKMTLF NQEKNESRPL TQIQYIAWPD HGVPDDSSDF LDFVCHVRNK RAGKEEPVVV HCSAGIGRTG VLITMETAMC LIECNQPVYP LDIVRTMRDQ RAMMIQTPSQ YRFVCEAILK VYEEGFVKPL TTSTNK

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 by multi-step, protein-specific process to ensure correct folding and modification.
- 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 will ensure that you receive a correctly folded 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 posttranslational 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 in several dilutions and is measured against its specific reference buffer.

	We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):
	1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.
	Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Target Details	
Target:	PTPN4
Alternative Name:	PTPN4 (PTPN4 Products)
Background:	Tyrosine-protein phosphatase non-receptor type 4 (EC 3.1.3.48) (Protein-tyrosine phosphatase
	MEG1) (MEG) (PTPase-MEG1),FUNCTION: Phosphatase that plays a role in immunity, learning,
	synaptic plasticity or cell homeostasis (PubMed:25825441, PubMed:27246854). Regulates
	neuronal cell homeostasis by protecting neurons against apoptosis (PubMed:20086240).
	Negatively regulates TLR4-induced interferon beta production by dephosphorylating adapter
	TICAM2 and inhibiting subsequent TRAM-TRIF interaction (PubMed:25825441).
	Dephosphorylates also the immunoreceptor tyrosine-based activation motifs/ITAMs of the TCI
	zeta subunit and thereby negatively regulates TCR-mediated signaling pathway (By similarity).
	May act at junctions between the membrane and the cytoskeleton. (ECO:0000250,
	ECO:0000250 UniProtKB:Q9WU22, ECO:0000269 PubMed:20086240,
	ECO:0000269 PubMed:25825441, ECO:0000269 PubMed:27246854}.
Molecular Weight:	105.9 kDa
UniProt:	P29074
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

Application Details

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	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. If you have a special request,
	please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)