Datasheet for ABIN3094559

PIF1 Protein (AA 1-641) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	PIF1
Protein Characteristics:	AA 1-641
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PIF1 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MLSGIEAAAG EYEDSELRCR VAVEELSPGG QPRRRQALRT AELSLGRNER RELMLRLQAP GPAGRPRCFP LRAARLFTRF AEAGRSTLRL PAHDTPGAGA VQLLLSDCPP DRLRRFLRTL RLKLAAAPGP GPASARAQLL GPRPRDFVTI SPVQPEERRL RAATRVPDTT LVKRPVEPQA GAEPSTEAPR WPLPVKRLSL PSTKPQLSEE QAAVLRAVLK GQSIFFTGSA GTGKSYLLKR ILGSLPPTGT VATASTGVAA CHIGGTTLHA FAGIGSGQAP LAQCVALAQR PGVRQGWLNC QRLVIDEISM VEADLFDKLE AVARAVRQQN KPFGGIQLII CGDFLQLPPV TKGSQPPRFC FQSKSWKRCV PVTLELTKVW RQADQTFISL LQAVRLGRCS DEVTRQLQAT ASHKVGRDGI VATRLCTHQD DVALTNERRL QELPGKVHRF EAMDSNPELA STLDAQCPVS QLLQLKLGAQ VMLVKNLSVS RGLVNGARGV VVGFEAEGRG LPQVRFLCGV TEVIHADRWT VQATGGQLLS RQQLPLQLAW AMSIHKSQGM TLDCVEISLG RVFASGQAYV ALSRARSLQG LRVLDFDPMA VRCDPRVLHF YATLRRGRSL SLESPDDDEA ASDQENMDPI L

Product Details

	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.
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).

Product Details

Grade:	custom-made

Target Details

Target:	PIF1
Alternative Name:	PIF1 (PIF1 Products)
Background:	ATP-dependent DNA helicase PIF1 (EC 3.6.4.12) (DNA repair and recombination helicase PIF1) (PIF1/RRM3 DNA helicase-like protein),FUNCTION: DNA-dependent ATPase and 5'-3' DNA helicase required for the maintenance of both mitochondrial and nuclear genome stability. Efficiently unwinds G-quadruplex (G4) DNA structures and forked RNA-DNA hybrids. Resolves G4 structures, preventing replication pausing and double-strand breaks (DSBs) at G4 motifs. Involved in the maintenance of telomeric DNA. Inhibits telomere elongation, de novo telomere formation and telomere addition to DSBs via catalytic inhibition of telomerase. Reduces the processivity of telomerase by displacing active telomerase from DNA ends. Releases telomerase by unwinding the short telomerase RNA/telomeric DNA hybrid that is the intermediate in the telomerase reaction. Possesses an intrinsic strand annealing activity. {ECO:0000255|HAMAP-Rule:MF_03176, ECO:0000269|PubMed:16522649, ECO:0000269|PubMed:17172855, ECO:0000269|PubMed:17827721, ECO:0000269|PubMed:18835853, ECO:0000269|PubMed:19700773, ECO:0000269|PubMed:20524933, ECO:0000269|PubMed:23657261}.
Molecular Weight:	69.8 kDa
UniProt:	Q9H611

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

Application Details

	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