

Datasheet for ABIN7554938  
**PIF1 Protein (AA 1-641) (His tag)**



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## Overview

Quantity:	1 mg
Target:	PIF1
Protein Characteristics:	AA 1-641
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PIF1 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

## Product Details

Purpose:	Custom-made recombinat PIF1 Protein expressed in mammalien cells.
Sequence:	MLSGIEAAAG EYEDSELRCR VAVEELSPGG QPRRRQALRT AELSLGRNER RELMLRLQAP GPAGRPRCFP LRAARLFTRF AEAGRSTLRL PAHDTPGAGA VQLLLSDCPP DRLRRFLRTL RLKLAAAPGP GPASARAQLL GPRPRDFVTI SPVQPEERRL RAATRVPDTT LVKRPVEPQA GAEPSTEAPR WPLPVKRLSL PSTKPQLSEE QAAVLRVLK 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 QLLQLKLGAAQ VMLVKNLSVS RGLVNGARGV VVGFEAEGRG LPQVRFLCGV TEVIHADRWT VQATGGQLLS RQQLPLQLAW AMSIHKSQGM TLDCVEISLG RVFASGQAYV ALSRARSLQG LRVLDFDPMA VRCDPRVLHF YATLRRGRSL SLESPDDDEA ASDQENMDPI L <b>Sequence without tag. The</b>

**proposed Purification-Tag is based on experiences 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 to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

### Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

### Grade:

custom-made

## Target Details

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### 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.

## Target Details

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{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}.

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Molecular Weight: 69.8 kDa

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UniProt: [Q9H611](#)

## Application Details

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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

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Format: Liquid

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Buffer: The buffer composition is at the discretion of the manufacturer.

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Handling Advice: Avoid repeated freeze-thaw cycles.

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Storage: -80 °C

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Storage Comment: Store at -80°C.

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Expiry Date: 12 months