ATP-Dependent DNA Helicase PIF1 (PIF1) Rat Recombinant Protein

PRODUCT OVERVIEW

Product Name	ATP-dependent DNA helicase PIF1 (Pif1), Recombinant Protein
Full Product Name	Recombinant Rat ATP-dependent DNA helicase PIF1 (Pif1)
Product Gene Name	Pif1 recombinant protein
Product Synonym Gene Name	Pif1
Sequence	MPSSTEVATD ECDDTELRCR VAVEELSPGG QPRKRQALRA AELSLGRNER RELMLRLQAP GPEGRPRCFP LRAVRLFTRF AAVGRSTLRL PADGVPRAGS VQLLLSDCPP ERLRRFLRTL RLKLAVAPGP GPASARAQLL GPRPRDFVTI SPVQPEELRR AAATKAPDSA LEKRPMESQP SMEAPRWPLP VKKLRMPSSK PKLSEEQAAV LRMVLKGQSI FFTGSAGTGK SYLLKHILGS LPPTGTVATA STGVAACHIG GTTLHAFAGI GSGQAPLAQC VALAHRPGVR QGWLNCQRLV IDEISMVEAD FFDKLEAVAR AVRQQKKPFG GIQLIICGDF LQLPPVTKGS QHPRFCFQAK SWRKCVPVTL ELTEVWRQAD QTFISLLKAV RLGRCSDEVT RQLRATAAHK VGRDGIIATR LCTHQDDVAL TNEKRLKELP GDVHSFEAID SDPELSRTLD AQCPVGRVLQ LKLGAQVMLV KNLAVSRGLV NGARGVVVGF ESEGRGLPRV RFLCGITEVI RTDRWTVQVT GGQYLSRQQL PLQLAWAMSI HKSQGMSLDC VEISLGRVFA SGQAYVALSR ARSLQGLRVL DFDPTVVRCD SRVLQFYATL RQGRGLSLES QDDEEASSDL ENMDPNL
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	69,758 Da
Sequence Positions	1-637aa; Full Length
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
3D Structure	ModBase 3D Structure for Q1HG60
Species	Rat
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for Pif1 recombinant protein	MBS1455378 is a recombinant protein targeting Pif1. Also known as Recombinant Rat ATP-dependent DNA helicase PIF1 (Pif1). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.
Other Notes	Small volumes of Pif1 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Pif1. It may not necessarily be applicable to this product.

NCBI GI #	112984084
NCBI GeneID	367645

NCBI Accession #	NP_001037718.1
UniProt Primary Accession #	Q1HG60
UniProt Related Accession #	Q1HG60
GenBank Nucleotide #	NM_001044253.1
NCBI Official Full Name	ATP-dependent DNA helicase PIF1
NCBI Official Synonym Full Names	PIF1 5'-to-3' DNA helicase
NCBI Official Symbol	Pif1
UniProt Protein Name	ATP-dependent DNA helicase PIF1
UniProt Synonym Protein Names	DNA repair and recombination helicase PIF1
Protein Family	ATP-dependent DNA helicase
UniProt Gene Name	Pif1
NCBI Protein Information	ATP-dependent DNA helicase PIF1
UniProt Comments for Pif1	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.
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