

Transcription factor PIF3 (PIF3), Recombinant Protein

Cat *RP01348*

Size 0.02 mg (*E-Coli*)/ 0.02 mg (*Yeast*)/ 0.1 mg (*E-Coli*)/ 0.1 mg
(*Yeast*)/ 0.02 mg (*Baculovirus*)/ 0.02 mg (*Mammalian-Cell*)/ 0.1

Species mg (*Baculovirus*)/ 1 mg (*E-Coli*)/ 0.1 mg (*Mammalian-Cell*)/ 1
mg (*Yeast*)/ 1 mg (*Baculovirus*)/ 0.5 mg (*Mammalian-Cell*)
Arabidopsis thaliana (Mouse-ear cress)

Full Product Name

Recombinant Arabidopsis thaliana Transcription factor PIF3 (PIF3) , partial

Product Gene Name

PIF3 recombinant protein

Purity

Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)

Sequence

MPLFELFRLT KAKLESAQDR NPSPPVDEVV ELVWENGQIS TQSQSSRSRN IPPPQANSSR AREIGNGSKT
TMVDEIPMSV PSLMTGLSQD DDFVPWLNNH PSLDGYCSD F LRDVSSPVTV NEQESDMVN QTAFPLFQRR
KDGNESAPAA SSSQYNGFQS HSLYGSDRAR DLPSQQTNP D RFTQTQEPLI TSNKPSLVNF SHFLRPATFA
KTTNNNLHDT KEKSPQSPPN VFQTRVLGAK DSEDKVLNES VASATPKDNQ KACLISEDSC RKDQSEKAV
VCSSVGSGNS LDGPSESPSL SLKRKHSNIQ DIDCHSEDVE EESGDGRKEA GPSRTGLGSK RSRSAEVHNL
SERRRRDRIN EKMRALQELI PNCNKVDKAS MLDEAIEYLK SLQLQVQIMS MASGYLPPA VMFPPGMGHY
PAAAAAMAMG MGMPYAMGLP DLSRGGSSVN HGPQFQVSGM QQQPVAMGIP RVSGGGIFAG SSTIGNGSTR
DLSGSKDQTT TNNNSNLKPI KRKQGSSDQF CGSS

Sequence Positions

1-524. Full Length

Format

Lyophilized or liquid (Format to be determined during the manufacturing process)

Host

E Coli or Yeast or Baculovirus or Mammalian Cell

Molecular Weight

56,990 Da

Storage

Store at -20°C. For long-term storage, store at -20°C or -80°C. Store working aliquots at 4°C for up to one week.
Repeated freezing and thawing is not recommended.

Protein Family

Transcription factor

NCBI Accession

NP_001318964.1

NCBI GI

1063681957

NCBI GenBank Nucleotide

NM_001331836.1

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

Transcription factor PIF3 (PIF3), Recombinant Protein

Cat *RP01348*

Size 0.02 mg (E-Coli)/ 0.02 mg (Yeast)/ 0.1 mg (E-Coli)/ 0.1 mg
(Yeast)/ 0.02 mg (Baculovirus)/ 0.02 mg (Mammalian-Cell)/ 0.1

mg (Baculovirus)/ 1 mg (E-Coli)/ 0.1 mg (Mammalian-Cell)/ 1
mg (Yeast)/ 1 mg (Baculovirus)/ 0.5 mg (Mammalian-Cell)
NCBI GeneID
837479

NCBI Official Full Name

phytochrome interacting factor 3

NCBI Official Symbol

PIF3

NCBI Official Synonym Symbols

F14J9.19; F14J9_19; PAP3; PHOTOCURRENT 1; phytochrome interacting factor 3; PHYTOCHROME
INTERACTING FACTOR 3; PHYTOCHROME-ASSOCIATED PROTEIN 3; POC1; purple acid phosphatase 3

NCBI Protein Information

phytochrome interacting factor 3

NCBI Summary

Transcription factor interacting with photoreceptors phyA and phyB. Forms a ternary complex in vitro with G-box element of the promoters of LHY, CCA1. Acts as a negative regulator of phyB signalling. It degrades rapidly after irradiation of dark grown seedlings in a process controlled by phytochromes. Does not play a significant role in controlling light input and function of the circadian clockwork. Binds to G- and E-boxes, but not to other ACEs. Binds to anthocyanin biosynthetic genes in a light- and HY5-independent fashion. PIF3 function as a transcriptional activator can be functionally and mechanistically separated from its role in repression of PhyB mediated processes.

UniProt Gene Name

PIF3

UniProt Synonym Gene Names

BHLH8; EN100; PAP3; AtbHLH8; bHLH 8

UniProt Protein Name

Transcription factor PIF3

UniProt Synonym Protein Names

Basic helix-loop-helix protein 8; AtbHLH8; bHLH 8; Phytochrome-associated protein 3; Phytochrome-interacting factor 3; Transcription factor EN 100; bHLH transcription factor bHLH008

UniProt Primary Accession

O80536

UniProt Secondary Accession

A5Y7A2; A5Y7A3; A5Y7A4; A5Y7A5; A5Y7A6; A5Y7A7; A5Y7A8; A5Y7A9; A5Y7B0; A5Y7B1; A5Y7B2

UniProt Related Accession

O80536

UniProt Comments

Transcription factor acting positively in the phytochrome signaling pathway. Activates transcription by binding to the G box (5'-CACGTG-3').

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY