Ethylene-Responsive Transcription Factor ERF053 (ERF053) Arabidopsis Thaliana Recombinant Protein

PRODUCT OVERVIEW

Product Name	Ethylene-responsive transcription factor ERF053 (ERF053), Recombinant Protein
Full Product Name	Recombinant Arabidopsis thaliana Ethylene-responsive transcription factor ERF053 (ERF053)
Product Gene Name	ERF053 recombinant protein
Product Synonym Gene Name	ERF053
Sequence	MATAKNKGKS IRVLGTSEAE KKDEMELEEE FQFSSGKYKD SGPGSDMWLG DASSTSPRSL RKTRTFDRHN PYLVSSYATP QPPTTTTCSV SFPFYLPPAI QNQQRFLHPN DPSGQRQQQM ISFDPQQQVQ PYVAQQQQQQ QHLLQYWRDI LKLSPSGRMM MMNMLRQESD LPLTRPPVQP FSATKLYRGV RQRHWGKWVA EIRKPRNRTR LWLGTFDTAE EAAMAYDREA FKLRGETARL NFPELFLNKQ EPTPVHQKQC ETGTTSEDSS RRGEDDSSTA LAVGGVSEET GWAEAWFNAI PEEWGPGSPL WDDYHFPISN HKDDLDATQN SSSDTI
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	38,398 Da
Sequence Positions	1-336, Full length protein
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 Q9SKT1
Species	Arabidopsis thaliana (Mouse-ear cress)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for ERF053 recombinant protein	MBS1328020 is a recombinant protein targeting ERF053. Also known as Recombinant Arabidopsis thaliana Ethylene-responsive transcription factor ERF053 (ERF053). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.
Other Notes	Small volumes of ERF053 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 ERF053. It may not necessarily be applicable to this product.

NCBI GI #	15226415
NCBI GeneID	816622
NCBI Accession #	NP_179685.1

UniProt Primary Accession #	Q9SKT1
UniProt Related Accession #	Q9SKT1
GenBank Nucleotide #	NM_127658.4
NCBI Official Full Name	Integrase-type DNA-binding superfamily protein
NCBI Official Symbol	ERF53
NCBI Official Synonym Symbols	AtERF53; ERF domain 53; F5H14.15; F5H14_15
UniProt Protein Name	Ethylene-responsive transcription factor ERF053
Protein Family	Ethylene-responsive transcription factor
UniProt Gene Name	ERF053
UniProt Synonym Gene Names	AtERF53
NCBI Protein Information	Integrase-type DNA-binding superfamily protein
NCBI Summary for ERF053	Encodes ERF53, a drought-induced transcription factor. Belongs to the AP2/ERF superfamily, and has a highly conserved AP2 domain. Regulates drought-responsive gene expressions by binding to the GCC box and/or dehydration-responsive element (DRE) in the promoter of downstream genes. Overexpression of AtERF53 driven by the CaMV35S promoter resulted in an unstable drought-tolerant phenotype in T2 transgenic plants.
UniProt Comments for ERF053	Transcriptional activator involved in abiotic stress tolerance. Can directly regulate stress-related gene expression by binding to the DNA sequence 5'-[AG]CCGAC-3' (DRE element) of their promoter region. Involved in the regulation of stomatal closure movement under drought stress (PubMed:23625358). Acts as a positive regulator of drought stress response (PubMed:22095047).
Research Articles on ERF053	**1.** Data indicate that expression of AtERF53 in wild-type Arabidopsis was responsive to heat and abscisic acid (ABA) treatment.
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