Receptor-Like Protein Kinase FERONIA (FER) Arabidopsis Thaliana Recombinant Protein

PRODUCT OVERVIEW

Product Name	Receptor-like protein kinase FERONIA (FER), Recombinant Protein
Full Product Name	Recombinant Arabidopsis thaliana Receptor-like protein kinase FERONIA (FER), partial
Product Gene Name	FER recombinant protein
Product Synonym Gene Name	FER
Sequence	ADY SPTEKILLNC GGGASNLTDT DNRIWISDVK SKFLSSSSED SKTSPALTQD PSVPEVPYMT ARVFRSPFTY TFPVASGRKF VRLYFYPNSY DGLNATNSLF SVSFGPYTLL KNFSASQTAE ALTYAFIIKE FVVNVEGGTL NMTFTPESAP SNAYAFVNGI EVTSMPDMYS STDGTLTMVG SSGSVTIDNS TALENVYRLN VGGNDISPSA DTGLYRSWYD DQPYIFGAGL GIPETADPNM TIKYPTGTPT YVAPVDVYST ARSMGPTAQI NLNYNLTWIF SIDSGFTYLV RLHFCEVSSN ITKINQRVFT IYLNNQTAEP EADVIAWTSS NGVPFHKDYV VNPPEGNGQQ DLWLALHPNP VNKPEYYDSL LNGVEIFKMN TSDGNLAGTN PIPGPQVTAD PSKVLRPTTR KSKSNTA
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	98,150 Da
Sequence Positions	28-447
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 Q9SCZ4
Species	Arabidopsis thaliana (Mouse-ear cress)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for FER recombinant protein	MBS1349041 is a recombinant protein targeting FER. Also known as Recombinant Arabidopsis thaliana Receptor-like protein kinase FERONIA (FER), partial. Host: E Coli or Yeast or Baculovirus or Mammalian Cell.
Other Notes	Small volumes of FER 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 FER. It may not necessarily be applicable to this product.

NCBI GI #	15230520
NCBI GeneID	824318
NCBI Accession #	NP_190723.1
UniProt Primary Accession #	Q9SCZ4

UniProt Secondary Accession #	Q0WM33; Q94C93; Q9M4G2; A7U523
UniProt Related Accession #	Q9SCZ4
GenBank Nucleotide #	NM_115014.5
NCBI Official Full Name	Malectin/receptor-like protein kinase family protein
NCBI Official Symbol	FER
NCBI Official Synonym Symbols	FERONIA
UniProt Protein Name	Receptor-like protein kinase FERONIA
UniProt Synonym Protein Names	Protein SIRENE
Protein Family	Ferric-chelate reductase
UniProt Gene Name	FER
UniProt Synonym Gene Names	AAK1; SIR; SRN
NCBI Protein Information	Malectin/receptor-like protein kinase family protein
NCBI Summary for FER	Encodes a synergid-expressed, plasma-membrane localized receptor-like kinase that accumulates asymetrically in the synergid membrnane at the filiform apparatus and mediates male-female gametophyte interactions during pollen tube reception. Also involved in powdery mildew infection.
UniProt Comments for FER	Receptor-like protein kinase that mediates the female control of male gamete delivery during fertilization, including growth cessation of compatible pollen tubes ensuring a reproductive isolation barriers, by regulating MLO7 subcellular polarization upon pollen tube perception in the female gametophyte synergids. Required for cell elongation during vegetative growth, mostly in a brassinosteroids- (BR-) independent manner. Acts as an upstream regulator for the Rac/Rop-signaling pathway that controls ROS-mediated root hair development. Seems to regulate a cross-talk between brassinosteroids and ethylene signaling pathways during hypocotyl elongation. Negative regulator of brassinosteroid response in light-grown hypocotyls, but required for brassinosteroid response in etiolated seedlings. Mediates sensitivity to powdery mildew (e.g. Golovinomyces orontii). Positive regulator of auxin-promoted growth that represses the abscisic acid (ABA) signaling via the activation of ABI2 phosphatase. Required for RALF1-mediated extracellular alkalinization in a signaling pathway preventing cell expansion.
Research Articles on FER	**1.** suppression of RALF1 gene expression, similar to disruption of the FER gene, rendered plants hypersensitive to ABA. These results formulated a mechanism for ABA activation of FER and for cross-talk between ABA and peptide hormone RALF in the control of plant growth and responses to stress signals
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