

# Protein POLLEN DEFECTIVE IN GUIDANCE 1 (POD1) (AT1G67960), Recombinant Protein

Cat *RP00387*

## Species

*Arabidopsis thaliana* (Mouse-ear cress)

## Full Product Name

Recombinant *Arabidopsis thaliana* Protein POLLEN DEFECTIVE IN GUIDANCE 1 (POD1)

## Product Gene Name

AT1G67960 recombinant protein

## Product Synonym Gene Name

Recombinant Protein POLLEN DEFECTIVE IN GUIDANCE 1 (POD1); Protein POLLEN DEFECTIVE IN GUIDANCE 1

## Purity

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

## Sequence

MAIRSSGRKL SFEILSQNSS FENDTTSIRR SSSDPITGNV ASESPRDYGK RKRSKSKKKKK VNQVETILEN  
GDSHSTIITG SSGDFGETTT MFENRLNYYG GGGSGSSGGG CVVTLLDGQT VHHNGFNFG E LRQRNVNGSV  
DGSNDERWSD TLSSDKKLYM EETSVELSPS ENPPFQEVQH QFPRSEINGN VVRLDTEAS LDWKQLVADD  
PDFLSAETRS PMKYFMEEIY GGISLRSTTT PGNDIERERI YDTIFRLPWR CEVLIDTGFF VCVNSFLSLL  
TVMPIRVLLI FMDAFKNRQF RRPSASELSD LACFLVLATG TILLGRDIS LIYHMIRGQS TIKLYVVYNI  
LEIFDRLCQS FCGDVFALF SSAKGLSISP PEKLRFTWR FVSDLALTMA ASILHSFILL AQAITLSTCI  
VAHNNALLAL LVSNNFAEIK SSVFKRFSKD NIHGLVYADS IERFHISAFL VSVLAQNILE SEGAWFGNFI  
YNATTVFCE MMIDIHKHSF LAKFNDIKPI AYSEFLQALC EQTLNIRPED RKTNLTFVPL APACVVIRVL  
TPVYAAHLPY SPLPWRMLWM VILFVITYIM LTSLKVLIGM GLRKHATWYI NRCRRRNSSH LHND

## Sequence Positions

1-624

## Chromosome Location

Chromosome: 1; NC\_003070.9 (25480652..25484262, complement). Location: chromosome: 1

## Format

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

## Host

E Coli or Yeast or Baculovirus or Mammalian Cell

## Molecular Weight

70,405 Da

## Storage

Store at -20°C. For extended storage, store at -20 or -80°C.

## NCBI Accession #

NP\_176963.2

## NCBI GI #

**FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY**

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30697603

## NCBI GenBank Nucleotide #

NM\_105466.2

## NCBI GeneID

843124

## NCBI Official Full Name

uncharacterized protein

## NCBI Official Symbol

AT1G67960

## NCBI Official Synonym Symbols

T23K23.19; T23K23\_19

## NCBI Protein Information

hypothetical protein

## UniProt Gene Name

POD1

## UniProt Protein Name

Protein POLLEN DEFECTIVE IN GUIDANCE 1

## UniProt Entry Name

POD1\_ARATH

## UniProt Primary Accession #

F4HVJ3

## UniProt Secondary Accession #

Q8VZM8; Q9C9W2

## UniProt Related Accession #

F4HVJ3

## UniProt Comments

Function: Probable component of the calreticulin 3 (CRT3) complex, acting probably as a co-chaperone involved in protein retention in the endoplasmic reticulum lumen. Required for micropylar pollen tube guidance. Plays an essential role in cell plate orientation or positioning in early embryo patterning. Subunit structure: Interacts with CRT3, but not with CRT1 or CNX. Subcellular location: Membrane; Multi-pass membrane protein Potential. Endoplasmic reticulum lumen. Note: Exclusive ER lumen localization and no membrane localization in. Tissue specificity: Expressed in inflorescences, siliques, roots and shoots. Expressed in early embryo, endosperm, mature pollen and pollen tubes, synergide cells and weakly in antipodal cells. Disruption phenotype: Defective in micropylar pollen tube guidance leading to zygotic lethality. Sequence similarities: Belongs to the TAPT1 family. Sequence caution: The sequence AAG51995.1 differs from that shown. Reason: Erroneous gene model

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prediction.

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