

Calcium-dependent protein kinase 3 (CPK3), Recombinant Protein

Cat RP01347

Size 0.5 mg (E-Coli)/ 0.05 mg (Baculovirus)/ 0.5 mg (Yeast)/ 0.05 mg (Mammalian-Cell)/ 1 mg (E-Coli)/ 0.1 mg (Baculovirus)/ 1 mg

(Yeast)/ 0.1 mg (Mammalian-Cell)

Species

Arabidopsis thaliana (Mouse-ear cress)

Full Product Name

Recombinant Arabidopsis thaliana Calcium-dependent protein kinase 3 (CPK3) , partial

Product Gene Name

CPK3 recombinant protein

Product Synonym Gene Name

CPK3

Purity

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

Format

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

Host

E Coli or Yeast or Baculovirus or Mammalian Cell

Molecular Weight

59,336 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

Calcium-dependent protein kinase

NCBI Accession

NP_194096.1

NCBI GI

15236560

NCBI GenBank Nucleotide

NM_118496.4

NCBI GeneID

828465

NCBI Official Full Name

calcium-dependent protein kinase 6

NCBI Official Symbol

CDPK6

NCBI Official Synonym Symbols

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

Calcium-dependent protein kinase 3 (CPK3), Recombinant Protein

Cat RP01347

Size 0.5 mg (E-Coli)/ 0.05 mg (Baculovirus)/ 0.5 mg (Yeast)/ 0.05 mg (Mammalian-Cell)/ 1 mg (E-Coli)/ 0.1 mg (Baculovirus)/ 1 mg

(Yeast)/ 0.1 mg (Mammalian-Cell)
AtCDPK6; Calcium dependent protein kinase 3; calcium-dependent protein kinase 6; CALCIUM-DEPENDENT PROTEIN KINASE 6; CPK3; F9D16.120; F9D16_120

NCBI Protein Information

calcium-dependent protein kinase 6

NCBI Summary

Encodes calcium dependent protein kinase 3 (CPK3), a member of the Arabidopsis CDPK gene family. CDPKs contain an intrinsic Ca²⁺-activation domain with four EF hand Ca²⁺-binding sites. CDPKs protein kinases have been proposed to function in multiple plant signal transduction pathways downstream of [Ca²⁺]cyt elevations, thus transducing various physiological responses. CPK3 is expressed in both guard cells and mesophyll cells. Functions in guard cell ion channel regulation. ABA and Ca(2+) activation of slow-type anion channels and, interestingly, ABA activation of plasma membrane Ca(2+)-permeable channels were impaired in independent alleles of single and double cpk3cpk6 mutant guard cells. Furthermore, ABA- and Ca(2+)-induced stomatal closing were partially impaired in these cpk3cpk6 mutant alleles. CPK6 is also a member of the Arabidopsis CDPK family.

UniProt Gene Name

CPK3

UniProt Synonym Gene Names

CDPK6; AtCDPK6

UniProt Protein Name

Calcium-dependent protein kinase 3

UniProt Synonym Protein Names

Calcium-dependent protein kinase isoform CDPK6; AtCDPK6

UniProt Primary Accession

Q42479

UniProt Secondary Accession

Q941A2

UniProt Related Accession

Q42479

UniProt Comments

May play a role in signal transduction pathways that involve calcium as a second messenger. Functions in abscisic acid (ABA) regulation of guard cell S-type anion-and Ca²⁺-permeable channels and stomatal closure.

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY