

# CBL-interacting serine/threonine-protein kinase 3 (CIPK3), Recombinant Protein

Cat      *RP05385*

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*)  
Species      *Arabidopsis thaliana* (Mouse-ear cress)

## Full Product Name

Recombinant *Arabidopsis thaliana* CBL-interacting serine/threonine-protein kinase 3 (CIPK3)

## Product Gene Name

CIPK3 recombinant protein

## Product Synonym Gene Name

CIPK3

## Purity

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

## Sequence

MNRRQQVKRR VGKYEVGRTI GEGTFAKVKF ARNSETGEPV ALKILDKEKV LKHKMAEQIR REIATMKLIK  
HPNVVQLYEV MASKTKIFII LEYVTGGELF DKIVNDGRMK EDEARRYFQQ LIHAVDYCHS RGVYHRDLKP  
ENLLDSYGN LKISDFGLSA LSQQVRDDGL LHTSCGTPNY VAPEVLNDRG YDGATADMWS CGVVLYVLLA  
GYLPFDDSNL MNLYKKISSG EFNCPPWLSL GAMKLITRIL DPNPMTRVTP QEVFEDEWFK KDYKPPVFEE  
RDDSNMDDID AVFKDSEEHV VTEKREEQPA AINAFEIISM SRGLNLENLF DPEQEFKRET RITLRGGANE  
IIEKIEEAAK PLGFDVQKKY YKMRLNVKA GRKGNLNVAT EIFQVAPSLH MVQVSKSKGD TLEFHKFYKK  
LSNSLEQVWV TNNEVKKETA K

## Sequence Positions

1-441, Full length protein

## Format

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

## Host

*E Coli* or *Yeast* or *Baculovirus* or *Mammalian Cell*

## Molecular Weight

43,119 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

CBL-interacting protein kinase

## NCBI Accession #

NP\_850092.1

## NCBI GI #

30683328

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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mg (Baculovirus)/ 1 mg (E-Coli)/ 0.1 mg (Mammalian-Cell)/ 1  
mg (Yeast)/ 1 mg (Baculovirus)/ 0.5 mg (Mammalian-Cell)  
NCBI GenBank Nucleotide #  
NM\_179761.2

## NCBI GeneID

817240

## NCBI Official Full Name

CBL-interacting protein kinase 3

## NCBI Official Symbol

CIPK3

## NCBI Official Synonym Symbols

CBL-interacting protein kinase 3; CBL-INTERACTING PROTEIN KINASE 3; SNF1-RELATED PROTEIN KINASE 3.17; SnRK3.17; T20P8.3; T20P8\_3

## NCBI Protein Information

CBL-interacting protein kinase 3

## NCBI Summary

encodes a serine-threonine protein kinase whose expression increases in response to abscisic acid, cold, drought, high salt, and wounding conditions. The gene is expressed in developing seeds and seedlings. Lines carrying a T-DNA insertions have reduced germination efficiency and expression of cold, high-salt, and abscisic acid marker genes are altered, but not drought-response markers.

## UniProt Gene Name

CIPK3

## UniProt Synonym Gene Names

PKS12; SnRK3.17

## UniProt Protein Name

CBL-interacting serine/threonine-protein kinase 3

## UniProt Synonym Protein Names

SNF1-related kinase 3.17; SOS2-like protein kinase PKS12

## UniProt Primary Accession #

Q2V452

## UniProt Secondary Accession #

Q0WM53; Q2V451; Q8RWU8; Q93VA4; Q9LKC9; Q9ZVD9

## UniProt Related Accession #

Q2V452

## UniProt Comments

Involved in the resistance to some abiotic stresses (e.g. high salt, hyperosmotic stress) in young seedlings, by

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

regulating the expression of several stress-inducible genes (cold- and salt-induced genes but not drought-responsive genes). Required for the ABA response during germination. CIPK serine-threonine protein kinases interact with CBL proteins. Binding of a CBL protein to the regulatory NAF domain of CIPK protein lead to the activation of the kinase in a calcium-dependent manner. The CBL9/CIPK3 complex acts in the regulation of abscisic acid response in seed germination.

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