

# Aspartokinase 1, chloroplastic (AK1), Recombinant Protein

Cat RP00515

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)  
Arabidopsis thaliana (Mouse-ear cress)

## Full Product Name

Recombinant Arabidopsis thaliana Aspartokinase 1, chloroplastic (AK1)

## Product Gene Name

AK1 recombinant protein

## Product Synonym Gene Name

AK1

## Purity

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

## Sequence

KFGGSSVASA ERMKEVADLI LTFPEESPVI VLSAMGKTTN NLLAGEKAV SCGVSNASEI EELSIKELH  
IRTVKELNID PSVILTYLEE LEQLLGIAM MKELTLRTRD YLVSFGECLS TRIFAAYLNT IGVKARQYDA  
FEIGFITDD FTNGDILEAT YPAVAKRLYD DWMHDPVPI VTGFLGKGWK TGAVTTLGRG GSDLTATTIG  
KALGLKEIQV WKDVDGVLTC DPTIYKRATP VPYLTDFEAA ELAYFGAQVL HPQSMRPARE GEIPVRVKNS  
YNPKAPGTII TKTRDMTKSI LTSIVLKRNV TMLDIASRM LGQVGFLAKV FSIFEELGIS VDVVATSEVS  
ISLTLDPSKL WSRELIQEL DHVVEELEKI AVNLLKGRA IISLIGNVQH SSLILERAFH VLYTKGVNVQ  
MISQGASKVN ISFIVNEAEA EGCVQALHKS FFESGDLSEL LIQPRLGNGS PVRTLQVEN

## Sequence Positions

91-569, 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

62,298 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

Adenylate kinase

## NCBI Accession #

NP\_196832.1

## NCBI GI #

15240593

## NCBI GenBank Nucleotide #

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

# Aspartokinase 1, chloroplastic (AK1), Recombinant Protein

Cat RP00515

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)

NM\_121337.3  
NCBI GeneID  
831169

## NCBI Official Full Name

aspartate kinase 1

## NCBI Official Symbol

AK-LYS1

## NCBI Official Synonym Symbols

AK; AK1; ASPARTATE KINASE; aspartate kinase 1; ASPARTATE KINASE 1; T31B5.100; T31B5\_100

## NCBI Protein Information

aspartate kinase 1

## NCBI Summary

Asp kinase inhibited by Lys and S-adenosylmethionine. Contains regulatory domains that belong to the ACT domain family, which allow binding to a extreme variety of ligands. Can function as a monomer or as a dimer with acetohydroxyacid synthase (HSDH).

## UniProt Gene Name

AK1

## UniProt Synonym Gene Names

AK; AK-LYS1

## UniProt Protein Name

Aspartokinase 1, chloroplastic

## UniProt Synonym Protein Names

Aspartate kinase 1

## UniProt Primary Accession #

Q9LYU8

## UniProt Secondary Accession #

O23152

## UniProt Related Accession #

Q9LYU8

## UniProt Comments

Involved in the first step of essential amino acids lysine, threonine, methionine and isoleucine synthesis via the aspartate-family pathway.

**FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY**