

Signal recognition particle 43 kDa protein, chloroplastic (CAO), Recombinant Protein

Cat RP00373

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)/ 1 mg (Yeast)/ 0.1 mg (Mammalian-Cell)/ 1 mg (Baculovirus)/ 0.5 mg (Mammalian-Cell)
Species Arabidopsis thaliana (Mouse-ear cress)

Full Product Name

Recombinant Arabidopsis thaliana Signal recognition particle 43 kDa protein, chloroplastic (CAO)

Product Gene Name

CAO recombinant protein

Purity

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

Sequence

AAVQRNYEET TSSVEEAEED DESSSSYGEV NKIIGSRTAG EGAMEYLI EW KDGHS PSWVP SSYIAADVVS
EYETPWWTAA RKADEQALSQ LLED RDVDAV DENGRTALLF VAGLGSDKCV RLLAEAGADL DHRDMRGGLT
ALHMAAGYVR PEVVEALVEL GADIEVEDER GLTALELARE ILKTPKGNP MQFGRRIGLE KVINVLEGQV
FEYAEVDEIV EKRKGKGDVE YLVRWKDGGD CEWVKGVHVA EDVAKDYEDG LEYAVAESVI GKRVGDDGKT
IEYLVKWTDM SDATWEPQDN VDSTLVLLYQ QQQPMNE

Sequence Positions

57-373, 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

41,279 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

Signal recognition particle 43 kDa protein

NCBI Accession

NP_566101.1

NCBI GI

18407359

NCBI GenBank Nucleotide

NM_130313.3

NCBI GeneID

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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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

819358 mg (Baculovirus)/ 1 mg (E-Coli)/ 1 mg (Yeast)/ 0.1 mg

(Mammalian Cell)/ 1 mg (Baculovirus)/ 0.5 mg (Mammalian-Cell)

NCBI Official Full Name
chloroplast signal recognition particle component (CAO)

NCBI Official Symbol

CAO

NCBI Official Synonym Symbols

CHAOS; CHLOROPLAST SIGNAL RECOGNITION PARTICLE 43; CPSRP43; T30B22.25

NCBI Protein Information

chloroplast signal recognition particle component (CAO)

NCBI Summary

A component of the chloroplast signal recognition particle pathway that is involved in LHCP targeting. It is downregulated in response to high light. It recognizes the DPLG motif in Lhcb1.

UniProt Gene Name

CAO

UniProt Synonym Gene Names

CPSRP43; CpSRP43

UniProt Protein Name

Signal recognition particle 43 kDa protein, chloroplastic

UniProt Synonym Protein Names

Chromo protein SRP43; CpSRP43

UniProt Primary Accession

O22265

UniProt Secondary Accession

Q93V50; Q940I7; Q9SAU3

UniProt Related Accession

O22265

UniProt Comments

Component of the chloroplast signal recognition particle pathway. Required for post-translational targeting of proteins into the thylakoid membrane but seems to be dispensable for co-translational targeting with a translating ribosome present. May be able to function independently of cpFTSY and FFC/cpSRP54 in targeting LHCPs to the thylakoids. Acts as a highly specific chaperone for LHCPs, preventing aggregation and being able to dissolve aggregates.

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