

Glycine-rich RNA-binding protein 8 (GRP8), Recombinant Protein

Cat RP00996

Size 0.02 mg (E-Coli)/ 0.1 mg (E-Coli)/ 0.02 mg (Yeast)/ 0.1 mg (Yeast)/ 0.02 mg (Baculovirus)/ 0.02 mg (Mammalian-Cell)/ 1

mg (E-Coli)/ 0.1 mg (Baculovirus)/ 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 Glycine-rich RNA-binding protein 8 (GRP8)

Product Gene Name

GRP8 recombinant protein

Purity

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

Sequence

MSEVEYRCFV GGLAWATNDE DLQRTFSQFG DVIDSKIIND RESGRSRGFG FVTFKDEKAM RDAIEEMNGK
ELDGRVITVN EAQSRGSGGG GGGRGGSGGG YRSGGGGGYS GGGGGGYS GG GGYERRSG
GYGSGGGGGG RGYGGGGRRE GGGYGGGDGG SYGGGGGGW

Sequence Positions

1-169, 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

5,884 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.

NCBI Accession

NP_195637.1

NCBI GI

15235002

NCBI GenBank Nucleotide

NM_120087.4

NCBI GeneID

830082

NCBI Official Full Name

cold, circadian rhythm, and RNA binding 1

NCBI Official Symbol

CCR1

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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

NCBI Official Synonym Symbols

(Mammalian-Cell)/ 1 mg (Baculovirus)/ 0.5 mg (Mammalian-Cell)
and RNA binding 1; ATGRP8; circadian rhythm; cold; GLYCINE-RICH PROTEIN 8; glycine-rich RNA-binding protein 8; GR-RBP8; GRP8; T22F8.160; T22F8_160

NCBI Protein Information

cold, circadian rhythm, and RNA binding 1

NCBI Summary

Encodes a glycine-rich protein with RNA binding domain at the N-terminus. Protein is structurally similar to proteins induced by stress in other plants. Gene expression is induced by cold. Transcript undergoes circadian oscillations that is depressed by overexpression of AtGRP7. A substrate of the type III effector HopU1 (mono-ADP-ribosyltransferase).

UniProt Gene Name

RBG8

UniProt Synonym Gene Names

CCR1; GR-RBP8; GRP8; AtGR-RBP8; AtGRP8; Protein CCR1

UniProt Protein Name

Glycine-rich RNA-binding protein 8

UniProt Synonym Protein Names

AtRBG8; Glycine-rich protein 8; AtGRP8; Protein COLD, CIRCADIAN RHYTHM, AND RNA BINDING 1; Protein CCR1

UniProt Primary Accession

Q03251

UniProt Secondary Accession

Q94CB0

UniProt Related Accession

Q03251

UniProt Comments

Plays a role in RNA transcription or processing during stress. Binds RNAs and DNAs sequence with a preference to single-stranded nucleic acids. Involved in mRNA alternative splicing of numerous targets by modulating splice site selection. Negatively regulates the circadian oscillations of its own transcript as well as RBG7 transcript. Forms an interlocked post-transcriptional negative feedback loop with the RBG7 autoregulatory circuit. Both proteins negatively autoregulate and reciprocally crossregulate by binding to their pre-mRNAs and promoting unproductive splicing coupled to degradation via the NMD pathway. Target of the *Pseudomonas syringae* type III effector HopU1.

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