

# Chlorophyll synthase (CHLG), Recombinant Protein

Cat *RP01364*

Size *0.02 mg/ 0.1 mg/ 5x0.1 mg*

## Species

*Arabidopsis thaliana* (Mouse-ear cress)

## Full Product Name

Recombinant *Arabidopsis thaliana* Chlorophyll synthase, chloroplastic (CHLG)

## Product Gene Name

CHLG recombinant protein

## Product Synonym Gene Name

G4

## Purity

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

## Sequence

AAETDSDKVK SQTPDKAPAG GSSINQLLGI KGASQETNKW KIRLQLTKPV TWPPLVWGVV CGAAASGNFH  
WTPEDVAKSI LCMMSGPCL TGYTQTINDW YDRDIDAIN PYRPIPSGAI SEPEVITQVW VLLLGGLGIA  
GILDVWAGHT TPTV FYLALG GSLLSYIYSA PPLK LKQNGW VGNFALGASY ISLPWWAGQA LFGTLTPDVV  
VLTLLYSIAG LGIAIVNDFK SVEGDALGL QSLPVAFGTE TAKWICVGAI DITQLSVAGY LLASGKPYA  
LALVALIIPQ IVFQFKYFLK DPVKYDVKYQ ASAQPFLVLG IFVTALASQH

## Sequence Positions

58-387aa; full length protein

## Format

Liquid containing glycerol

## Host

Cell Free Expression

## Molecular Weight

41,881 Da

## Storage

Store at -20°C, for extended storage, conserve at -20°C or -80°C. Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

## Protein Family

Chlorophyll synthase

## NCBI Accession #

NP\_190750.1

## NCBI GI #

15231043

## NCBI GenBank Nucleotide #

NM\_115041.3

**FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY**

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## NCBI GeneID

824345

## NCBI Official Full Name

chlorophyll synthase

## NCBI Official Symbol

G4

## NCBI Official Synonym Symbols

ATG4; CHLG; G4

## NCBI Protein Information

chlorophyll synthase

## NCBI Summary

Encodes a protein with chlorophyll synthase activity. This enzyme has been shown to perform the esterification of chlorophyllide (a and b), the last step of chlorophyll biosynthesis. Although it can use either geranylgeranyl pyrophosphate (GGPP) or phytyl pyrophosphate (PhyPP) as substrates, the esterification reaction was faster with GGPP than with PhyPP.

## UniProt Gene Name

CHLG

## UniProt Synonym Gene Names

G4; AtG4

## UniProt Protein Name

Chlorophyll synthase, chloroplastic

## UniProt Synonym Protein Names

Polyprenyl transferase; Protein G4; AtG4

## UniProt Entry Name

CHLG\_ARATH

## UniProt Primary Accession #

Q38833

## UniProt Comments

Involved in one of the last steps of the biosynthesis of chlorophyll a. Catalyzes the esterification of chlorophyllide a or b with a preference for geranylgeranyldiphosphate (GGPP) rather than for phytyldiphosphate (PhyPP).

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