

# Glutamyl-tRNA reductase 2, chloroplastic (HEMA2), Recombinant Protein

Cat RP05066

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 Glutamyl-tRNA reductase 2, chloroplastic (HEMA2)

## Product Gene Name

HEMA2 recombinant protein

## Purity

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

## Sequence

ASISALEQLK TSAIDRYTKE RSSIVVIGLS IHTAPVEMRE KLAIPAEWP RAIAELCGLN HIEEAAVLST  
CNRMEIYVLA LSQHRGVKEV TEWMSKTSGI PVSEICQHRF LLYNKDVTQH IFEVSAGLDS LVLGEGQILA  
QVKQVVKVGQ GVNGFGRNIS GLFKHAITVG KRVRTETNIA AGAVSVSSAA VELALMKLPE SSHASSARML  
VVGAGKMGKL VIKHLVAKGC TKMVVVNRSE EKVA AVR NEM PPGVEIYKP LDEMLSCAAE ADVVFTSTAS  
ETPLFLKEQV ETLPPVRDAR LFVDISVPRN VGSCVAEIDG TRVFNVDLKEVVAANKEDR VRKAMDAQAI  
ITDESKHFEA WRDSLETVPT IKKLRGYTER IIAAEIEKSL PKMGIDMNKK MRKTVDDLIR GIVNKLLHGP  
MQHLRCDGND SRTLSETLDN MQALNRMVYGL DAEILEEKIR AKVEKK

## Sequence Positions

65-530, 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

58,292 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

Glutamyl-tRNA reductase

## NCBI Accession #

NP\_172465.1

## NCBI GI #

15218333

## NCBI GenBank Nucleotide #

NM\_100868.3

**FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY**

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Cat      *RP05066*

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)

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**NCBI GeneID**  
837528

## NCBI Official Full Name

Glutamyl-tRNA reductase family protein

## NCBI Official Symbol

HEMA2

## NCBI Official Synonym Symbols

F21M12.33; F21M12\_33

## NCBI Protein Information

Glutamyl-tRNA reductase family protein

## NCBI Summary

Encodes glutamyl-tRNA reductase. Involved in heme biosynthesis in non-photosynthetic tissues and induced by oxidative stress in photosynthetic tissues to supply heme for defensive hemoproteins

## UniProt Gene Name

HEMA2

## UniProt Synonym Gene Names

GluTR

## UniProt Protein Name

Glutamyl-tRNA reductase 2, chloroplastic

## UniProt Primary Accession #

P49294

## UniProt Secondary Accession #

O04950; Q0WQP1; Q4V3B7

## UniProt Related Accession #

P49294

## UniProt Comments

Catalyzes the NADPH-dependent reduction of glutamyl-tRNA(Glu) to glutamate 1-semialdehyde (GSA). Probably involved in wound-induced supply of heme to defensive hemoproteins outside plastids.

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