

# Glutamate-1-semialdehyde 2,1-aminomutase 1, chloroplastic (GSA1), Recombinant Protein

Cat RP01369

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 Glutamate-1-semialdehyde 2,1-aminomutase 1, chloroplastic (GSA1)

## Product Gene Name

GSA1 recombinant protein

## Purity

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

## Sequence

VSVDEKKKSF SLQKSEEAFN AAKNLMPPGGV NSPVRAFKSV GGQPVLIDSV KGSKMWDIDG NEYIDYVGSW  
GPAIGHADD EVLAAALAEATM KKGTSFGAPC LLENVLAEMV ISAVPSIEMV RFVNSGTEAC MGVRLRARAF  
TNKEKFIKFE GCYHGHANAF LVKAGSGVAT LGLPDSGVP KAATSDTLTA PYNDLEAVEK LFAAHKGEIS  
AVILEPVVGN SGFIPPTPEF INGLRQLTKD NGVLLIFDEV MTGFRLAYGG AQEYFGITPD LTTLGKIIGG  
GLPVGAYGGR RDIMEMVAPA GPMYQAGTLS GNPLAMTAGI HTLKRLKQAG TYEYLDKITEK ELTNGILEAG  
KKTGHPMCGG YISGMFGFFF AEGPVYNFAD SKKSDTEKFG RFFRGMLEEG VYFAPSQFEA GFTSLAHTPE  
DIQLTIAAAE RVLRSI

## Sequence Positions

39-474, 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

50,370 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

Glutathione synthetase

## NCBI Accession #

NP\_201162.1

## NCBI GI #

15242822

## NCBI GenBank Nucleotide #

NM\_125752.4

**FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY**

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Cat *RP01369*

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*

**NCBI GeneID**  
*mg (Baculovirus)/ 1 mg (E-Coli)/ 0.1 mg (Mammalian-Cell)/ 1 mg (Yeast)/ 1 mg (Baculovirus)/ 0.5 mg (Mammalian-Cell)*  
836476

## NCBI Official Full Name

glutamate-1-semialdehyde-2,1-aminomutase

## NCBI Official Symbol

GSA1

## NCBI Official Synonym Symbols

"glutamate-1-semialdehyde-2; 1-aminomutase; 1-AMINOMUTASE; 1-aminomutase";  
glutamate-1-semialdehyde-2; GLUTAMATE-1-SEMIALDEHYDE-2; GSA-AM; MBK5.3; MBK5\_3

## NCBI Protein Information

glutamate-1-semialdehyde-2,1-aminomutase

## NCBI Summary

Encodes a protein with homology to glutamate-1-semialdehyde 2,1-aminomutase catalyzing the conversion of glutamate-1-semialdehyde (GSA) into 5-amino levulinate. The expression of this gene was demonstrated to be light-induced.

## UniProt Gene Name

GSA1

## UniProt Synonym Gene Names

HEML1; GSA 1; GSA-AT 1

## UniProt Protein Name

Glutamate-1-semialdehyde 2,1-aminomutase 1, chloroplastic

## UniProt Synonym Protein Names

Glutamate-1-semialdehyde aminotransferase 1; GSA-AT 1

## UniProt Primary Accession #

P42799

## UniProt Related Accession #

P42799

## UniProt Comments

Transaminase converting glutamate 1-semialdehyde (GSA) to 5-aminolevulinate (ALA). Involved in the biosynthesis of tetrapyrroles.

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