

# Hydroxymethylglutaryl-CoA synthase (HMGS), Recombinant Protein

Cat *RP01289*

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*)  
Arabidopsis thaliana (Mouse-ear cress)

## Full Product Name

Recombinant Arabidopsis thaliana Hydroxymethylglutaryl-CoA synthase (HMGS)

## Product Gene Name

HMGS recombinant protein

## Purity

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

## Sequence

MAKNVGILAM DIYFPPTCVQ QEALEAHDGA SKGKYTIGLG QDCLAFCTEL EDVISMFSNA VTSLFEKYKI  
DPNQIGRLEV GSETVIDKSK SIKTFLMQLF EKCNTDVEG VDSTNACYGG TAALLNCVNW VESNSWDGRY  
GLVICTDSAV YAEGRPTG GAAAIAMLIQ PDAPIVFESK LRASHMAHVY DFYKPNLASE YPVVDGKLSQ  
TCYLMALDSC YKHLCKNF EK IEGKEFSIND ADYIVFHSPY NKLQVKSFA R LLYNDFLRNA SSIDEAAKEK  
FTPYSSTLD ESYQSRDLEK VSQQAIPFY DAKVQPTTLI PKEVGNMYTA SLYAAFASLI HKKHNDLAGK  
RVVMFSYSGS STATMFSRL NDNKPPFSIS NIASVMDVGG KLKARHEYAP EK FVETMKLM EHRYGAKDFV  
TTKEGIIDLL APGTYLKEV DSYRFRFYGK KGEDGVSANG H

## Sequence Positions

1-461, 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

45,205 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\_001319906.1

## NCBI GI #

1063721804

## NCBI GenBank Nucleotide #

NM\_001340735.1

## NCBI GeneID

826788

**FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY**

# Hydroxymethylglutaryl-CoA synthase (HMGS), Recombinant Protein

Cat RP01289

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)

hydroxymethylglutaryl-CoA synthase / HMG-CoA synthase / 3-hydroxy-3-methylglutaryl coenzyme A synthase

## NCBI Official Symbol

HMGS

## NCBI Official Synonym Symbols

EMB2778; EMBRYO DEFECTIVE 2778; FKP1; FLAKY POLLEN 1; HMG-COA SYNTHASE; HYDROXYMETHYLGLUTARYL-COA SYNTHASE; MVA1; T26M18.30; T26M18\_30

## NCBI Protein Information

hydroxymethylglutaryl-CoA synthase / HMG-CoA synthase / 3-hydroxy-3-methylglutaryl coenzyme A synthase

## NCBI Summary

Encodes a protein with hydroxymethylglutaryl-CoA synthase activity which was characterized by phenotypical complementation of the *S. cerevisiae* mutant.

## UniProt Gene Name

HMGS

## UniProt Synonym Gene Names

EMB2778; FKP1; MVA1; HMG-CoA synthase

## UniProt Protein Name

Hydroxymethylglutaryl-CoA synthase

## UniProt Synonym Protein Names

3-hydroxy-3-methylglutaryl coenzyme A synthase; Protein EMBRYO DEFECTIVE 2778; Protein FLAKY POLLEN 1

## UniProt Primary Accession #

P54873

## UniProt Secondary Accession #

Q8L721; Q9S707

## UniProt Related Accession #

P54873

## UniProt Comments

This enzyme condenses acetyl-CoA with acetoacetyl-CoA to form HMG-CoA, which is the substrate for HMG-CoA reductase. Devoided of acetoacetyl-CoA thiolase (AACT) activity. Required for the development of both tapetosomes and elaioplasts in tapetal cells and for pollen viability during pollen tube elongation.

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