

Beta-carotene 3-hydroxylase 1 (BETA-OHASE 1), Recombinant Protein

Cat *RP00487*

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

Species

Arabidopsis thaliana (Mouse-ear cress)

Full Product Name

Recombinant *Arabidopsis thaliana* Beta-carotene 3-hydroxylase 1, chloroplastic (BETA-OHASE 1)

Product Gene Name

BETA-OHASE 1 recombinant protein

Product Synonym Gene Name

B1; CHY1

Purity

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

Sequence

EERRQNSPIE NDERPESTSS TNAIDAEYLA LRLAEKLERK KSERSTYLIA AMLSSFGITS MAVMAVYYRF
SWQMEGGEIS MLEMFGTFAL SVGAAVGMEF WARWAHRALW HASLWNMHES HHKPREGPFE LNDVFAIVNA
GPAIGLLSYG FFNKGLVPGL CFGAGLGITV FGIAYMFVHD GLVHKRFPVG PIADVPLYRK VAAAHQLHHT
DKFNGVPYGL FLGPKELEE V GGNEELDKEI SRRIKSYKKA SGSGSSSSS

Sequence Positions

52-310aa; full length protein

Format

Liquid containing glycerol

Host

Cell Free Expression

Molecular Weight

25,135 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

Beta-carotene 3-hydroxylase

NCBI Accession

NP_001031715.1

NCBI GI

79325259

NCBI GenBank Nucleotide

NM_001036638.2

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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NCBI GeneID

828675

NCBI Official Full Name

beta-carotene 3-hydroxylase 1

NCBI Official Symbol

BETA-OHASE 1

NCBI Official Synonym Symbols

B1; BCH1; BETA CAROTENOID HYDROXYLASE 1; beta-hydroxylase 1; BETA-OHASE 1; chy1

NCBI Protein Information

beta-carotene 3-hydroxylase 1

NCBI Summary

Converts beta-carotene to zeaxanthin via cryptoxanthin.

UniProt Gene Name

BETA-OHASE 1

UniProt Synonym Gene Names

B1; CHY1; AtB1

UniProt Protein Name

Beta-carotene 3-hydroxylase 1, chloroplastic

UniProt Entry Name

BCH1_ARATH

UniProt Primary Accession

Q9SZZ8

UniProt Secondary Accession

Q96297; F4JTC5

UniProt Related Accession

Q9SZZ8

UniProt Comments

Nonheme diiron monooxygenase involved in the biosynthesis of xanthophylls. Specific for beta-ring hydroxylations of beta-carotene. Has also a low activity toward the beta- and epsilon-rings of alpha-carotene. No activity with acyclic carotenoids such as lycopene and neurosporene. Uses ferredoxin as an electron donor (Probable).

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