

# Probable branched-chain-amino-acid aminotransferase 4 (BCAT4), Recombinant Protein

Cat      *RP04820*

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*)/ 1 mg (*Yeast*)/ 0.1 mg  
(*Mammalian-Cell*)/ 1 mg (*Baculovirus*)/ 0.5 mg (*Mammalian*

## Species<sup>Cell</sup>

*Arabidopsis thaliana* (Mouse-ear cress)

## Full Product Name

Recombinant *Arabidopsis thaliana* Probable branched-chain-amino-acid aminotransferase 4 (BCAT4)

## Product Gene Name

BCAT4 recombinant protein

## Product Synonym Gene Name

BCAT4

## Purity

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

## Sequence

MAPSAQPLPV SVSDEKYANV KWEELAFKFV RTDYMVAKC NHGESFQEGK ILPFADLQLN PCAAVLQYGQ  
GLYEGLKAYR TEDGRILLFR PDQNGRLRLQA GADRLYPYP SVDQFVSAIK QVALANKKWI PPPGKGTLYI  
RPILFGSGPI LGSFPIPETT FTAACPVGR YHKDNSGLNL KIEDQFRRAF PSGTGGVXSI TNYCPWVPL  
AEAKKQGFSD ILFLDAATGK NIEELFAANV FMLKGNVST PTIAGTILPG VTRNCVMELC RDFGYQVEER  
TIPLVDFLDA DEAFCTGTAS IVTSIASVTF KDKKTGFKTG EETLAAKLYE TLSDIQTGRV EDTKGWTVEI DRQG

## Sequence Positions

1-354, 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

39,019 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

Methionine aminotransferase

## NCBI Accession #

NP\_188605.1

## NCBI GI #

15230923

**FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY**

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## NCBI GenBank Nucleotide #

NM\_112861.4

## NCBI GeneID

821508

## NCBI Official Full Name

branched-chain aminotransferase4

## NCBI Official Symbol

BCAT4

## NCBI Official Synonym Symbols

branched-chain aminotransferase4

## NCBI Protein Information

branched-chain aminotransferase4

## NCBI Summary

Belongs to the branched-chain amino acid aminotransferase gene family. Encodes a methionine-oxo-acid transaminase. Involved in the methionine chain elongation pathway that leads to the ultimate biosynthesis of methionine-derived glucosinolates.

## UniProt Gene Name

BCAT4

## UniProt Synonym Gene Names

Atbc4-4

## UniProt Protein Name

Methionine aminotransferase BCAT4

## UniProt Synonym Protein Names

Branched-chain-amino-acid aminotransferase 4; Atbc4-4; Methionine-oxo-acid transaminase BCAT4

## UniProt Primary Accession #

Q9LE06

## UniProt Secondary Accession #

Q0WW34

## UniProt Related Accession #

Q9LE06

## UniProt Comments

Converts 2-oxo acids to branched-chain amino acids. Shows activity with L-Leu, L-Ile and L-Val as amino donors

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mg (*Baculovirus*)/ 1 mg (*E-Coli*)/ 1 mg (*Yeast*)/ 0.1 mg  
~~(*Mammalian-Cell*)/ 1 mg (*Baculovirus*)/ 0.5 mg (*Mammalian-*~~

~~*Cell*)~~  
and alpha-ketoglutarate as an amino acceptor, but no activity for D-isomers of Leu, Ile, Val, Asp, Glu or Ala. Acts on methionine and its derivatives and the corresponding 2-oxo acids. Catalyzes the initial deamination of methionine to 4-methylthio-2-oxobutyrates as well as the transamination of other typical intermediates of the methionine chain elongation pathway.

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