

BCKDHA Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP6830b**Specification**

BCKDHA Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [P12694](#)**BCKDHA Antibody (C-term) Blocking Peptide - Additional Information**

Gene ID 593

Other Names

2-oxoisovalerate dehydrogenase subunit alpha, mitochondrial, Branched-chain alpha-keto acid dehydrogenase E1 component alpha chain, BCKDE1A, BCKDH E1-alpha, BCKDHA

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP6830b](/products/AP6830b) was selected from the C-term region of human BCKDHA. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

BCKDHA Antibody (C-term) Blocking Peptide - Protein InformationName BCKDHA ([HGNC:986](#))**Function**

Together with BCKDHB forms the heterotetrameric E1 subunit of the mitochondrial branched-chain alpha-ketoacid dehydrogenase (BCKD) complex. The BCKD complex catalyzes the multi-step oxidative decarboxylation of alpha-ketoacids derived from the branched-chain amino-acids valine, leucine and isoleucine producing CO₂ and acyl-CoA which is subsequently utilized to produce energy. The E1 subunit catalyzes the first step with the decarboxylation of the alpha-ketoacid forming an enzyme-product intermediate. A reductive acylation mediated by the lipoylamine cofactor of E2 extracts the acyl group from the E1 active site for the next step of the reaction.

Cellular Location

Mitochondrion matrix

BCKDHA Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

BCKDHA Antibody (C-term) Blocking Peptide - Images

BCKDHA Antibody (C-term) Blocking Peptide - Background

The branched-chain alpha-keto acid (BCAA) dehydrogenase(BCKD) complex is an inner mitochondrial enzyme complex that catalyzes the second major step in the catabolism of the branched-chain amino acids leucine, isoleucine, and valine. The BCKD complex consists of three catalytic components: a heterotetrameric (alpha2-beta2) branched-chain alpha-keto acid decarboxylase (E1), a dihydrolipoyl transacylase (E2), and a dihydrolipoamide dehydrogenase (E3). BCKDHA is the alpha subunit of the decarboxylase (E1) component.

BCKDHA Antibody (C-term) Blocking Peptide - References

Flaschker,N., et.al., J. Inherit. Metab. Dis. 30 (6), 903-909 (2007)