

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

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**BCKDHA Antibody (C-term) Blocking Peptide - Product Information**Primary 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 Information**Name 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 CO<sub>2</sub> 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)