

# Recombinant human BCKDHA protein

Catalog Number: ATGP0944

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

46-445aa

### UniProt No.

P12694

### NCBI Accession No.

NP\_000700.1

### Alternative Names

2-oxoisovalerate dehydrogenase subunit alpha, BCKDE1A, BCKDH E1-alpha, MSu, MSuD1, OVD1A

## PRODUCT SPECIFICATION

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### Molecular Weight

47.8 kDa (421aa) confirmed by MALDI-TOF

### Concentration

0.25mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 5mM DTT, 30% glycerol, 0.2M NaCl

### Purity

> 80% by SDS-PAGE

### Tag

His-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

BCKDHA (branched-chain alpha-keto acid dehydrogenase E1 component alpha chain), also known as 2-oxoisovalerate dehydrogenase subunit alpha, belongs to the BCKDHA family. The branched-chain alpha-keto acid dehydrogenase complex is an inter 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). Recombinant human

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BCKDHA protein, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

## Amino acid Sequence

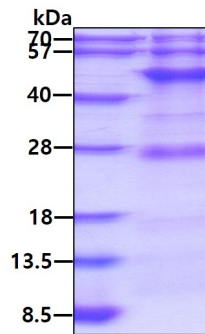
<MGSSHHHHHH SSGLVPRGSH> MSSLDDKPQF PGASAEFIDK LEFIQPNVIS GIPIYRVMDR QGQIINPSED PHLPKEKVLK  
LYKSMTLLNT MDRILYESQR QGRISFYMTN YGEEGTHVGS AAALDNTDLV FGQYREAGVL MYRDYPLELF MAQCYGNISD  
LGKGRQMPVH YGCKERHFVT ISSPLATQIP QAVGAAYA AAK RANANRVVIC YFGEGAASEG DAHAGFNFAA TLECPIIFFC  
RNNGYAISTP TSEQYRGDGI AARGPGYGIM SIRVDGNDVF AVYNATKEAR RRAVAENQPF LIEAMTYRIG HHSTSDDSSA  
YRSVDEVNYW DKQDHPISRL RHYLLSQGWW DEEQEKAWRK QSRRKVMEAF EQAERKPKPN PNLLFSDVYQ  
EMPAQLRKQQ ESLARHLQTY GEHYPLDHF D K

## General References

Nobukuni Y., et al. (1993) *Biochim. Biophys. Acta* 1225:64-70  
Funchal, C., et al. (2005) *Metab. Brain Dis.* 20: 205-217

## DATA

### SDS-PAGE



3 $\mu$ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain