

## BCKDHA polyclonal antibody

Catalog: BS67347

Host: Rabbit

Reactivity: Human, Mouse, Rat

### BackGround:

Branched-chain amino acids (BCAAs) leucine, isoleucine, and valine are essential amino acids in mammals, but elevated levels of BCAAs have been implicated in cardiovascular and metabolic disorders. The branched-chain  $\alpha$ -keto acid dehydrogenase complex (BCKDH) catalyzes the rate-limiting step in the BCAA degradation pathway. Branched-chain  $\alpha$ -keto acid decarboxylase (BCKDH-E1) is one of three enzymatic components in this complex. The  $\alpha$  subunit of BCKDH-E1 (BCKDH-E1 $\alpha$ ) is critical for the regulation of BCKDH. Phosphorylation of BCKDH-E1 $\alpha$  was shown to play a key role in regulating the enzymatic activity of this complex.

Phosphorylation of BCKDH-E1 $\alpha$  at Ser293 inactivates BCKDH. A significant elevation in plasma BCAA levels was reported to correlate with increased phosphorylation of BCKDH-E1 $\alpha$  at Ser293 and suppressed BCKDH activity in the liver of diabetic mice.

### Product:

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.

### Molecular Weight:

~50 kDa

### Swiss-Prot:

P12694

### Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

### Applications:

WB (1/500 - 1/2000), IF/ICC (1/50 - 1/200)

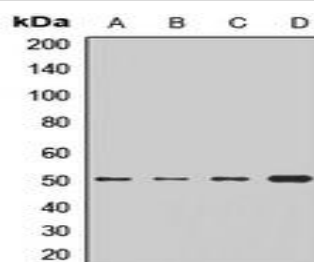
### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

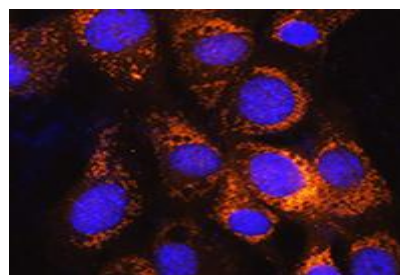
### Specificity:

Recognizes endogenous levels of BCKDHA protein.

### DATA:



Western blot analysis of BCKDHA expression in LO2 (A), NIH3T3 (B), mouse heart (C), rat liver (D) whole cell lysates.



Immunofluorescent analysis of BCKDHA staining in NIH3T3 cells.

Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AF594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

### Note:

For research use only, not for use in diagnostic procedure.

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