

For Research Use Only

# BCKDHA Polyclonal antibody

Catalog Number: 30028-1-AP

Featured Product

2 Publications



## Basic Information

<b>Catalog Number:</b> 30028-1-AP	<b>GenBank Accession Number:</b> BC008933	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul , Concentration: 800 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 593	<b>Recommended Dilutions:</b> WB 1:2000-1:16000 IHC 1:200-1:800
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P12694	
<b>Isotype:</b> IgG	<b>Full Name:</b> branched chain keto acid dehydrogenase E1, alpha polypeptide	
<b>Immunogen Catalog Number:</b> AG32613	<b>Calculated MW:</b> 50 kDa	
	<b>Observed MW:</b> 42-50 kDa	

## Applications

<b>Tested Applications:</b> WB, IHC, ELISA	<b>Positive Controls:</b>
<b>Cited Applications:</b> WB	WB : mouse liver tissue, HepG2 cells, rat liver tissue
<b>Species Specificity:</b> Human, mouse, rat	IHC : human liver tissue,
<b>Cited Species:</b> rat, mouse	

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Background Information

branched chain keto acid dehydrogenase E1, alpha polypeptide (BCKDHA), the gene encoding the regulated subunit of BCKDC was only one of two primary susceptibility genes identified that affected the risk of both type 2 diabetes mellitus (T2DM) and obesity (PMID: 25287287). BIX01294 transcriptionally downregulated the transcription of BCKDHA, which is essential for fueling the tricarboxylic acid (TCA) cycle. Studies have shown that KDM3A, a Jumonji histone demethylase, epigenetically regulates BCKDHA expression by binding to the BCKDHA gene promoter (PMID: 34876693). Moreover, at least four genes including BCKDHA, branched chain keto acid dehydrogenase E1, beta polypeptide (BCKDHB), dihydroliipoamide dehydrogenase (DLD), and dihydroliipoamide branched chain transacylase E2 (DBT) have been reported to be the causative gene for Maple syrup urine disease (MSUD) (PMID: 34187135).

## Notable Publications

Author	Pubmed ID	Journal	Application
Haojie Jiang	37473846	J Thromb Haemost	WB
Ying Wang	37104913	Clin Nutr	WB

## Storage

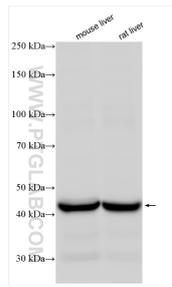
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

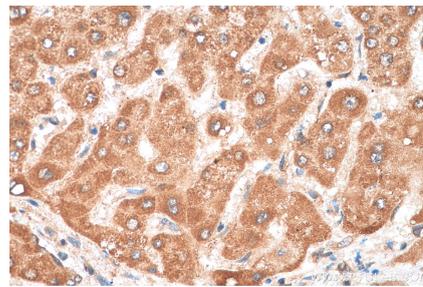
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

## Selected Validation Data



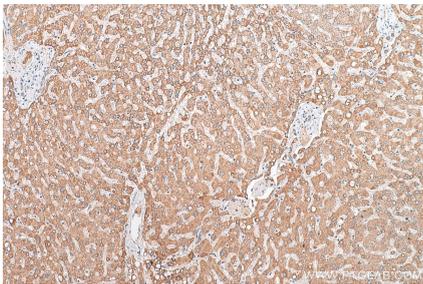
Various lysates were subjected to SDS PAGE followed by western blot with 30028-1-AP (BCKDHA antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 30028-1-AP (BCKDHA antibody) at dilution of 1:400 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



HepG2 cells were subjected to SDS PAGE followed by western blot with 30028-1-AP (BCKDHA antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 30028-1-AP (BCKDHA antibody) at dilution of 1:400 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).