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BCAT1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10147c

Product Information

Application	IHC-P, WB, E
Primary Accession	P54687
Other Accession	P54690, P24288, NP_001171563.1, NP_001171562.1, NP_005495.2, NP_001171564.1, NP_001171565.1
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	42966
Antigen Region	81-107

Additional Information

Gene ID	586
Other Names	Branched-chain-amino-acid aminotransferase, cytosolic, BCAT(c), Protein ECA39, BCAT1, BCT1, ECA39
Target/Specificity	This BCAT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 81-107 amino acids from the Central region of human BCAT1.
Dilution	IHC-P~~1:100~500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	BCAT1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	BCAT1
Synonyms	BCT1, ECA39 {ECO:0000303|PubMed:8692959}

Function	Catalyzes the first reaction in the catabolism of the essential branched chain amino acids leucine, isoleucine, and valine.
Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:P54690}.
Tissue Location	During embryogenesis, expressed in the brain and kidney. Overexpressed in MYC-induced tumors such as Burkitt's lymphoma

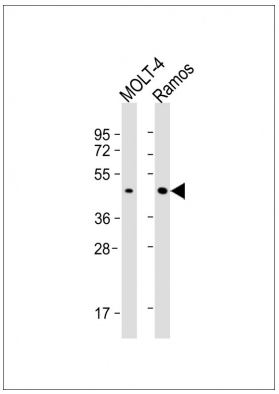
Background

This gene encodes the cytosolic form of the enzyme branched-chain amino acid transaminase. This enzyme catalyzes the reversible transamination of branched-chain alpha-keto acids to branched-chain L-amino acids essential for cell growth. Two different clinical disorders have been attributed to a defect of branched-chain amino acid transamination: hypervalinemia and hyperleucine-isoleucinemia. As there is also a gene encoding a mitochondrial form of this enzyme, mutations in either gene may contribute to these disorders. Alternatively spliced transcript variants have been described.

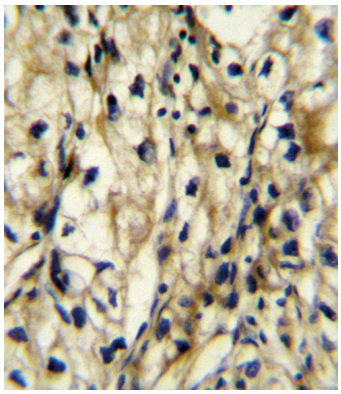
References

Eijgelsheim, M., et al. Hum. Mol. Genet. 19(19):3885-3894(2010)
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
Barber, M.J., et al. PLoS ONE 5 (3), E9763 (2010) :
Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)

Images



All lanes : Anti-BCAT1 Antibody (Center) at 1:1000 dilution Lane 1: MOLT-4 whole cell lysate Lane 2: Ramos whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 43 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



BCAT1 Antibody (Center) (Cat. #AP10147c) immunohistochemistry analysis in formalin fixed and paraffin embedded human kidney carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the BCAT1 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.