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BAAT Antibody (N-Term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22054a

Product Information

Application	WB, E
Primary Accession	Q14032
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB55344
Calculated MW	46299

Additional Information

Gene ID	570
Other Names	Bile acid-CoA:amino acid N-acyltransferase, BACAT, BAT, 2.3.1.65, Glycine N-choloyltransferase, Long-chain fatty-acyl-CoA hydrolase, 3.1.2.2, BAAT
Target/Specificity	This BAAT antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 63-95 amino acids from human BAAT.
Dilution	WB~~1:2000 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	BAAT Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	BAAT
Function	Catalyzes the amidation of bile acids (BAs) with the amino acids taurine and glycine (PubMed:12239217, PubMed:12810727, PubMed:2037576, PubMed:8034703). More than 95% of the BAs are N-acyl amidates with glycine and taurine (PubMed:8034703). Amidation of BAs in the liver with glycine or taurine prior to their excretion into bile is an important biochemical event in bile acid metabolism (PubMed:12810727). This conjugation (or

	amidation) plays several important biological roles in that it promotes the secretion of BAs and cholesterol into bile and increases the detergent properties of BAs in the intestine, which facilitates lipid and vitamin absorption (PubMed:12810727). May also act as an acyl-CoA thioesterase that regulates intracellular levels of free fatty acids (PubMed:12239217, PubMed:12810727, PubMed:8034703). In vitro, catalyzes the hydrolysis of long- and very long-chain saturated acyl-CoAs to the free fatty acid and coenzyme A (CoASH), and conjugates glycine to these acyl-CoAs (PubMed:12810727).
Cellular Location	Cytoplasm, cytosol. Peroxisome {ECO:0000250|UniProtKB:Q63276}
Tissue Location	Expressed in the gallbladder mucosa and pancreas (PubMed:12810727, PubMed:2037576). Expressed in hepatocytes (at protein level) (PubMed:12810727, PubMed:2037576, PubMed:23415802)

Background

Involved in bile acid metabolism. In liver hepatocytes catalyzes the second step in the conjugation of C24 bile acids (choloneates) to glycine and taurine before excretion into bile canaliculi. The major components of bile are cholic acid and chenodeoxycholic acid. In a first step the bile acids are converted to an acyl-CoA thioester, either in peroxisomes (primary bile acids deriving from the cholesterol pathway), or cytoplasmic at the endoplasmic reticulum (secondary bile acids). May catalyze the conjugation of primary or secondary bile acids, or both. The conjugation increases the detergent properties of bile acids in the intestine, which facilitates lipid and fat-soluble vitamin absorption. In turn, bile acids are deconjugated by bacteria in the intestine and are recycled back to the liver for reconjugation (secondary bile acids). May also act as an acyl-CoA thioesterase that regulates intracellular levels of free fatty acids. In vitro, catalyzes the hydrolysis of long- and very long-chain saturated acyl-CoAs to the free fatty acid and coenzyme A (CoASH), and conjugates glycine to these acyl-CoAs.

References

Falany C.N.,et al.J. Biol. Chem. 269:19375-19379(1994).
Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Humphray S.J.,et al.Nature 429:369-374(2004).
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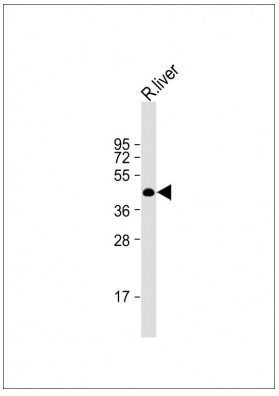
Johnson M.R.,et al.J. Biol. Chem. 266:10227-10233(1991).

Images



Anti-BAAT Antibody (N-Term) at 1:2000 dilution + rat liver lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 46 kDa Blocking/Dilution buffer: 5% NFDM/TBST.