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BAAT Blocking Peptide (N-Term)

Synthetic peptide
Catalog # BP22054a

Specification

BAAT Blocking Peptide (N-Term) - Product Information

Primary Accession Q14032

BAAT Blocking Peptide (N-Term) - 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
The synthetic peptide sequence is selected from aa 83-95 of HUMAN BAAT

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

BAAT Blocking Peptide (N-Term) - 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)

BAAT Blocking Peptide (N-Term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

BAAT Blocking Peptide (N-Term) - Images

BAAT Blocking Peptide (N-Term) - 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.

BAAT Blocking Peptide (N-Term) - References

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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).