

Anti-ABAT Picoband Antibody
Catalog # ABO11637**Specification**

Anti-ABAT Picoband Antibody - Product Information

Application	WB
Primary Accession	P80404
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for 4-aminobutyrate aminotransferase, mitochondrial(ABAT) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-ABAT Picoband Antibody - Additional Information**Gene ID 18****Other Names**

4-aminobutyrate aminotransferase, mitochondrial, 2.6.1.19, (S)-3-amino-2-methylpropionate transaminase, 2.6.1.22, GABA aminotransferase, GABA-AT, Gamma-amino-N-butyrate transaminase, GABA transaminase, GABA-T, L-AIBAT, ABAT, GABAT

Calculated MW

56439 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Mitochondrion matrix.

Tissue Specificity

Liver > pancreas > brain > kidney > heart > placenta.

Protein Name

4-aminobutyrate aminotransferase, mitochondrial

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

E. coli-derived human ABAT recombinant protein (Position: K388-K500). Human ABAT shares 93.9% and 94.5% amino acid (aa) sequence identity with mouse and rat ABAT, respectively.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins.

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-ABAT Picoband Antibody - Protein Information

Name ABAT ([HGNC:23](#))

Synonyms GABAT

Function

Catalyzes the conversion of gamma-aminobutyrate and L-beta- aminoisobutyrate to succinate semialdehyde and methylmalonate semialdehyde, respectively (PubMed:[10407778](http://www.uniprot.org/citations/10407778), PubMed:[15528998](http://www.uniprot.org/citations/15528998)). Can also convert delta-aminovalerate and beta-alanine (By similarity).

Cellular Location

Mitochondrion matrix.

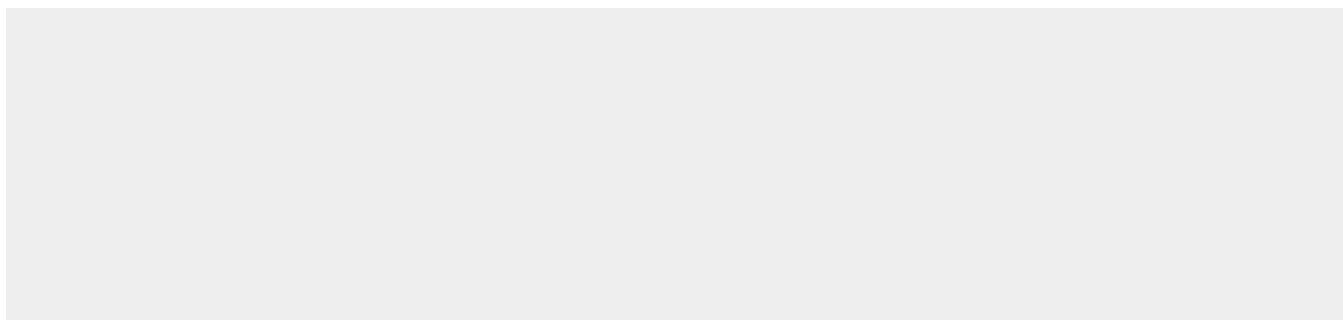
Tissue Location

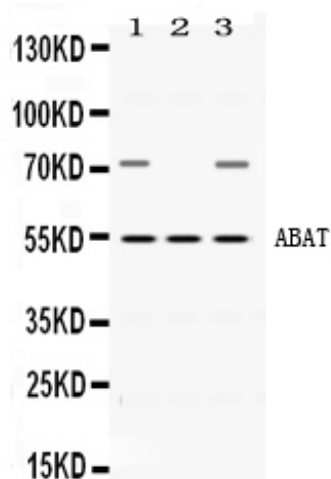
Liver > pancreas > brain > kidney > heart > placenta.

Anti-ABAT Picoband Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-ABAT Picoband Antibody - Images



Western blot analysis of ABAT expression in rat brain extract (lane 1), mouse testis extract (lane 2) and HEPG2 whole cell lysates (lane 3). ABAT at 54KD was detected using rabbit anti- ABAT Antigen Affinity purified polyclonal antibody (Catalog # ABO11637) at 0.5 µg/mL. The blot was developed using chemiluminescence (ECL) method .

Anti-ABAT Picoband Antibody - Background

4-Aminobutyrate aminotransferase is a protein that in humans is encoded by the ABAT gene. ABAT is responsible for catabolism of gamma-aminobutyric acid (GABA), an important, mostly inhibitory neurotransmitter in the central nervous system, into succinic semialdehyde. The active enzyme is a homodimer of 50-kD subunits complexed to pyridoxal-5- phosphate. The protein sequence is over 95% similar to the pig protein. GABA is estimated to be present in nearly one-third of human synapses. ABAT in liver and brain is controlled by 2 codominant alleles with a frequency in a Caucasian population of 0.56 and 0.44. The ABAT deficiency phenotype includes psychomotor retardation, hypotonia, hyperreflexia, lethargy, refractory seizures, and EEG abnormalities. Multiple alternatively spliced transcript variants encoding the same protein isoform have been found for this gene.