

Anti-ABAT Picoband Antibody

Catalog # ABO11637

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.

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
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.
Source	Eukaryota
Protein Name	4-aminobutyrate aminotransferase, mitochondrial
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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.

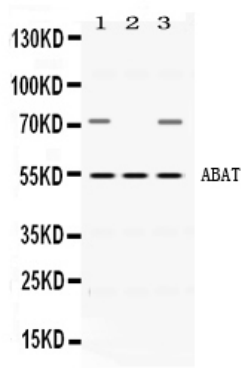
Protein Information

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 , PubMed: 15528998). Can also convert delta-aminovalerate and beta-alanine (By similarity).
Cellular Location	Mitochondrion matrix.
Tissue Location	Liver > pancreas > brain > kidney > heart > placenta.

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 humans 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.

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 .

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