

Recombinant Human ABAT protein, His & T7-tagged

Cat. No. ABAT-1034H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ABAT aa. (Pro249~Lys500 (Accession # P80404) fused with N-terminal His & T7 tag was produced in E. coli cells.
Species	Human
Source	E.coli
ProteinLength	Pro249~Lys500
Description	4-aminobutyrate aminotransferase (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.
Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 32.4kDa.

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Endotoxin	<1.0EU per 1g (determined by the LAL method)
Purity	>90%
Characteristic	The isoelectric point is 8.6.
Applications	SDS-PAGE; WB; ELISA; IP.
Stability	The thermal stability is described by the loss rate of the target protein. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. (Referring from China Biological Products Standard, which was calculated by the Arrhenius equation.) The loss of this protein is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.
Storage buffer	Supplied as lyophilized form in 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% sarcosyl, 5% trehalose, and preservative.
Reconstitution	Reconstitute in sterile ddH ₂ O.

GENE INFORMATION

Gene Name	ABAT 4-aminobutyrate aminotransferase [Homo sapiens (human)]
Official Symbol	ABAT
Synonyms	ABAT; 4-aminobutyrate aminotransferase; GABAT; NPD009; GABA-AT; 4-aminobutyrate aminotransferase, mitochondrial; (S)-3-amino-2-methylpropionate

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transaminase; 4-aminobutyrate transaminase; GABA aminotransferase; GABA transaminase; GABA transferase; gamma-amino-N-butyrate transaminase

Gene ID	18
mRNA Refseq	NM_000663.4
Protein Refseq	NP_000654.2
UniProt ID	P80404

SDS-PAGE

