



# Recombinant Human 4-aminobutyrate aminotransferase, mitochondrial (ABAT)

<b>Product Code</b>	CSB-EP001032HU-B
<b>Storage</b>	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
<b>Uniprot No.</b>	P80404
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Purity</b>	>85% (SDS-PAGE)
<b>Sequence</b>	SQ AAAKVDVEFD YDGPLMKTEV PGPRSQELMK QLNIIQNAEA VHFFCNYEES RGNLVDVDG NRMLDLYSQI SSVPIGYSHP ALLKLIQQPQ NASMFVNRPA LGILPPENFV EKLRQSLLSV APKGMSQLIT MACGSCSNEN ALKTIFMWYR SKERGQRGFS QEELETMIN QAPGCPDYSI LSFMGAFHGR TMGCLATTHS KAIHKIDIPS FDWPIAPFPR LKYPLEEFVK ENQQEEARCL EEVEDLIVKY RKKKKTVAGI IVEPIQSEGG DNHASDDFFR KLRDIARKHG CAFLVDEVQT GGGCTGKFWA HEHWGLDDPA DVMTFSKMM TGGFFHKEEF RPNAPYRIFN TWLGDP SKNL LLAEVINIIK REDLLNNAAH AGKALLTGLL DLQARYPQFI SRVRGRGTFC SFDPDSDSIR NKLILIARNK GVVLGGCGDK SIRFRPTLVF RDHHAHLFLN IFSDILADFK
<b>Source</b>	E.coli
<b>Target Names</b>	ABAT
<b>Protein Names</b>	Recommended name: 4-aminobutyrate aminotransferase, mitochondrial EC= 2.6.1.19 Alternative name(s): (S)-3-amino-2-methylpropionate transaminase EC= 2.6.1.22 GABA aminotransferase Short name= GABA-AT Gamma-amino-N-butyrate
<b>Expression Region</b>	29-500
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	Tag type will be determined during the manufacturing process.
<b>Protein Length</b>	Full Length of Mature Protein
<b>Target Details</b>	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.

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**Reconstitution**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

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**Shelf Life**

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.