

ABAT Protein, Human (His, SUMO, Myc)

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| Cat. No.: | HY-P72068 |
| Synonyms: | S; 3 amino 2 methylpropionate transaminase ; S; -3-amino-2-methylpropionate transaminase; 4 aminobutyrate aminotransferase; 4 aminobutyrate aminotransferase; mitochondrial; 4-aminobutyrate aminotransferase; ABAT; FLJ17813; FLJ30272; GABA aminotransferase; GABA AT; GABA T; GABA transaminase; GABA transferase; GABA-AT; GABA-T; GABAT; GABT_HUMAN; Gamma amino N butyrate transaminase; Gamma-amino-N-butyrate transaminase; hCG1984265; L AIBAT; L-AIBAT; LAIBAT; mitochondrial; NPDP009 |
| Species: | Human |
| Source: | E. coli |
| Accession: | P80404 (S29-K500) |
| Gene ID: | 18 |
| Molecular Weight: | Approximately 69 kDa |

PROPERTIES

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| AA Sequence | <pre> S Q A A A K V D V E F D Y D G P L M K T E V P G P R S Q E L M K Q L N I I Q N A E A V H F F C N Y E E S R G N Y L V D V D G N R M L D L Y S Q I S S V P I G Y S H P A L L K L I Q Q P Q N A S M F V N R P A L G I L P P E N F V E K L R Q S L L S V A P K G M S Q L I T M A C G S C S N E N A L K T I F M W Y R S K E R G Q R G F S Q E E L E T C M I N Q A P G C P D Y S I L S F M G A F H G R T M G C L A T T H S K A I H K I D I P S F D W P I A P F P R L K Y P L E E F V K E N Q Q E E A R C L E E V E D L I V K Y R K K K K T V A G I I V E P I Q S E G G D N H A S D D F F R K L R D I A R K H G C A F L V D E V Q T G G G C T G K F W A H E H W G L D D P A D V M T F S K K M M T G G F F H K E E F R P N A P Y R I F N T W L G D P S K N L L L A E V I N I I K R E D L L N N A A H A G K A L L T G L L D L Q A R Y P Q F I S R V R G R G T F C S F D T P D D S I R N K L I L I A R N K G V V L G G C G D K S I R F R P T L V F R D H H A H L F L N I F S D I L A D F K </pre> |
| Biological Activity | The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet. |
| Appearance | Lyophilized powder. |
| Formulation | Lyophilized from a 0.2 µm solution of 10 mM Tris-HCl, 1 mM EDTA, 6% Trehalose, pH 8.0. |
| Endotoxin Level | <1 EU/µg, determined by LAL method. |
| Reconstitution | It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. |
| Storage & Stability | Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage. |
| Shipping | Room temperature in continental US; may vary elsewhere. |

DESCRIPTION

Background

GABA transaminase (ABAT) is the protein responsible for GABA metabolism. ABAT mediates the GABA metabolic pathway, a bypass mechanism in the tricarboxylic acid cycle (TCAC), producing succinate and NADH. γ -Aminobutyric acid (GABA), routinely described as an inhibitory neurotransmitter, is found in high concentrations in the neural parenchyma and has various roles in the CNS. Elevated ABAT expression results in increased GABA catabolism, decreased tumor cell proliferation. In mammals, reduced ABAT expression is implicated in primary clear cell renal carcinoma, breast cancer, and myelodysplastic syndrome tumorigenesis. ABAT has been shown to be implicated in mitochondrial nucleoside metabolism, respiratory capacity, membrane potential, and mitochondrial DNA maintenance^[1].

REFERENCES

[1]. Martirosian V, et, al. Medulloblastoma uses GABA transaminase to survive in the cerebrospinal fluid microenvironment and promote leptomeningeal dissemination. Cell Rep. 2021 Jun 29;35(13):109302.

Caution: Product has not been fully validated for medical applications. For research use only.

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