PRODUCT DATASHEET

ABAT (4-aminobutyrate aminotransferase)

CATALOG NO.: MSC-11-676

DESCRIPTION: Human recombinant ABAT (residues 29-500; Genbank Accession # NM_020686.6; MW = 64.8 kDa) expressed in *E. coli* with an N-terminal His-tag and C-terminal StrepII tag. Catalyzes the neurotransmitter gamma-aminobutyric acid (GABA) into succinic semialdehyde.

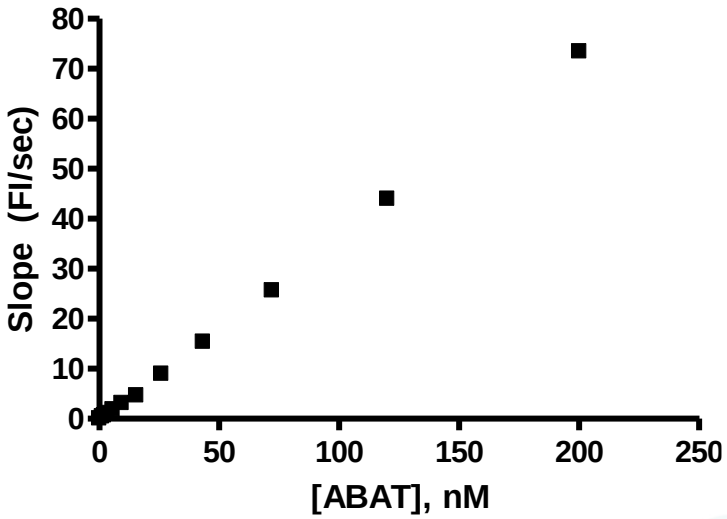
PURITY: > 95% by SDS-PAGE.

SUPPLIED AS: ___ µg/µL in 50 mM Tris, pH 7.5, 500 mM NaCl, 0.5 mM TCEP, 10% (w/v) glycerol as determined by OD280.

ASSAY CONDITIONS: RBC's ABAT displays activity in a succinate dehydrogenase and diaphorase/resazurin coupled assay in the presence of 5 mM GABA and 2 mM aKG, along with detection mixture of 0.2 mM SSDH, 0.5 mM NAD, 0.015 mg/mL diaphorase and 50 uM resazurin. Reaction conditions are: 50 mM potassium pyrophosphate, pH 8.5, 0.01% Triton X-100, substrates at concentrations indicated above.

STORAGE: -70°C. Thaw quickly and store on ice before use. The remaining, unused, undiluted protein should be snap frozen, for example in a dry ice/ethanol bath or liquid nitrogen. Minimize freeze/thaws if possible, but very low volume aliquots (<5 µl) or storage of diluted enzyme is not recommended.

Coomassie blue stained SDS-PAGE (4-20% acrylamide) of 4 µg of RBC ABAT. MW markers (left) are, from top, 220, 160, 120, 100, 90, 80, 70, 60, **50**, 40, 30, 25, **20**, 15, 10 kDa.



ABAT activity assay. Activity of RBC's ABAT was monitored using a succinate dehydrogenase/diaphorase/resazurin coupled assay. Variable amounts of ABAT were incubated with 5 mM GABA and 2 mM aKG along with detection mixture of 0.2 uM SSDH, 0.5 mM NAD, 0.015 mg/mL diaphorase and 50 µM resazurin. CLARIOstar plate reader (BMG Labtech) was used for real time monitoring with Ex/Em 530/595nm.

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