

Recombinant Rat AST protein (His tag)

Catalog No. PDMR100007

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description

Synonyms	Aspartate aminotransferase;cytoplasmic;cAspAT;Cysteine aminotransferase;cytoplasmic;Cysteine transaminase;cytoplasmic;cCAT;Glutamate oxaloacetate transaminase 1;Transaminase A;Got1
Species	Rat
Expression Host	HEK293 Cells
Sequence	Met1-Gln413
Accession	P13221
Calculated Molecular Weight	45.3 kDa
Observed molecular weight	45 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis

Background

Biosynthesis of L-glutamate from L-aspartate or L-cysteine. Important regulator of levels of glutamate, the major excitatory neurotransmitter of the vertebrate central nervous system. Acts as a scavenger of glutamate in brain neuroprotection. The aspartate aminotransferase activity is involved in hepatic glucose synthesis during development and in adipocyte glyceroneogenesis. Using L-cysteine as substrate, regulates levels of mercaptopyruvate, an important source of hydrogen sulfide. Mercaptopyruvate is converted into H₂S via the action of 3-mercaptopruvate sulfurtransferase (3MST). Hydrogen sulfide is an important synaptic modulator and neuroprotectant in the brain.

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