

Recombinant GOT1 (AST1) protein

Catalog No: 81297, 81997

Expressed In: *E. coli*

Quantity: 50, 1000 µg

Concentration: 0.8 µg/µl

Source: Human

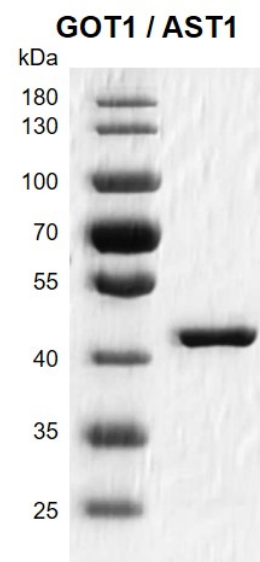
Buffer Contents: Recombinant GOT1 / AST1 protein is supplied in 25 mM Tris-HCl pH 8.0, 300 mM NaCl, 10% glycerol and 0.5 mM TCEP.

Background: GOT1 (Glutamic-Oxaloacetic Transaminase 1), also known as AST1, is a pyridoxal phosphate-dependent enzyme which exists in cytoplasmic. GOT1 plays a role in amino acid metabolism and the urea and tricarboxylic acid cycles. GOT1 catalyzes the reversible conversion of aspartate and α -ketoglutarate to oxaloacetate and glutamate in amino acid metabolism and is found in tissues of liver, heart, skeletal muscle, brain, and red blood cells. The enzyme is commonly used as a clinical marker since the serum level of GOT1 indicates the severity of damaged liver and heart tissue. GOT1 expression correlates with tumor growth due to use of the glutamine by various cancer cells. GOT1 is a homodimer where each monomer comprises a small and large domain. Two identical PLP binding sites are located at the dimeric interface between the small and large domains of each monomer. Residue K259 in the catalytic pocket is essential for the formation of the PLP-K259 aldimine and the R387/R293 substrate binding motif.

Protein Details: Full length human GOT1 / AST1 protein was expressed in *E. coli* cells (accession number NP_002070.1) with a C-terminal 6×His-Tag. The molecular weight of the protein is 47.3 kDa.

Application Notes: This product was manufactured as described in Protein Details. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for a given product is shown on the lot-specific Technical Data Sheet.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is guaranteed for 6 months from date of arrival.



Recombinant GOT1 / AST1 protein gel

10% SDS-PAGE with Coomassie blue staining

MW: 47.3 kDa

Purity: >95%