

# Aspartate Aminotransferase Rabbit mAb

Catalog # AP75112

## Product Information

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<b>Application</b>	WB, IHC-P, FC
<b>Primary Accession</b>	<a href="#">P17174</a>
<b>Reactivity</b>	Rat, Human, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Monoclonal Antibody
<b>Isotype</b>	IgG
<b>Conjugate</b>	Unconjugated
<b>Purification</b>	Affinity Purified
<b>Calculated MW</b>	46248

## Additional Information

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<b>Gene ID</b>	2805
<b>Other Names</b>	GOT1
<b>Dilution</b>	WB~~1:500-1:1000 IHC-P~~N/A FC~~1:20-1:50
<b>Format</b>	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

## Protein Information

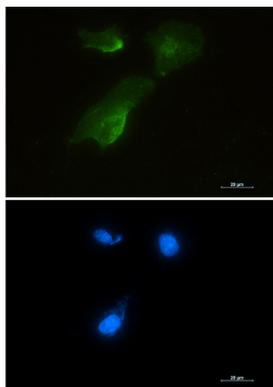
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<b>Name</b>	GOT1 ( <a href="#">HGNC:4432</a> )
<b>Function</b>	Biosynthesis of L-glutamate from L-aspartate or L-cysteine (PubMed: <a href="#">21900944</a> ). Important regulator of levels of glutamate, the major excitatory neurotransmitter of the 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 H(2)S via the action of 3-mercaptopyruvate sulfurtransferase (3MST). Hydrogen sulfide is an important synaptic modulator and neuroprotectant in the brain. In addition, catalyzes (2S)-2- aminobutanoate, a by-product in the cysteine biosynthesis pathway (PubMed: <a href="#">27827456</a> ).
<b>Cellular Location</b>	Cytoplasm.

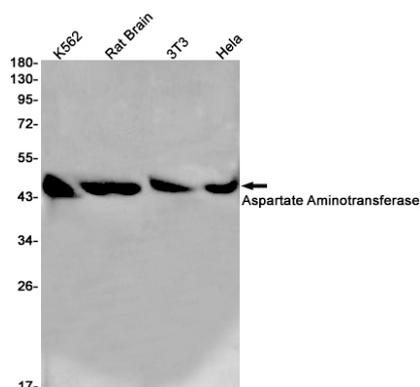
## Background

Glutamate oxaloacetate transaminase 1 (GOT1) catalyzes the reversible reaction of L-aspartate and alpha-ketoglutarate into oxaloacetate and L-glutamate and plays a key role in carbon and nitrogen metabolism. GOT1 can potentially control the intracellular levels of reactive oxygen species (ROS) through NADPH synthesis and enhances tumor growth. GOT1 expression correlates with the growth of several tumors.

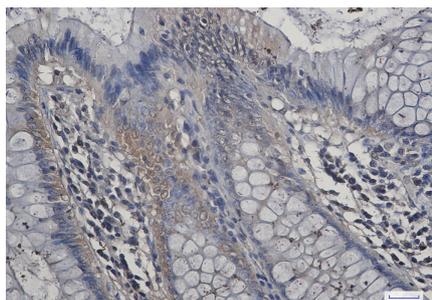
## Images



Immunocytochemistry analysis of Aspartate Aminotransferase (green) in U87-MG using Aspartate Aminotransferase antibody, and DAPI (blue).



Western blot analysis of Aspartate Aminotransferase in K562, rat Brain, 3T3, HeLa lysates using Aspartate Aminotransferase antibody.



Immunohistochemistry analysis of paraffin-embedded Human colon cancer tissue using Aspartate Aminotransferase antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.

