10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Aspartate Aminotransferase Rabbit mAb

Catalog # AP75112

Product Information

Application	WB, IHC-P, FC
Primary Accession	P17174
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	46248

Additional Information

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

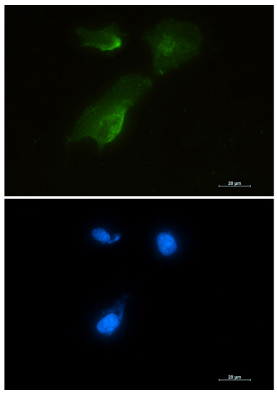
Protein Information

Name	GOT1 (HGNC:4432)
Function	Biosynthesis of L-glutamate from L-aspartate or L-cysteine (PubMed:21900944). 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:27827456).
Cellular Location	Cytoplasm.

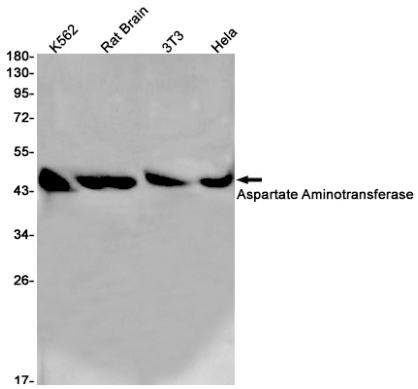
Background

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.

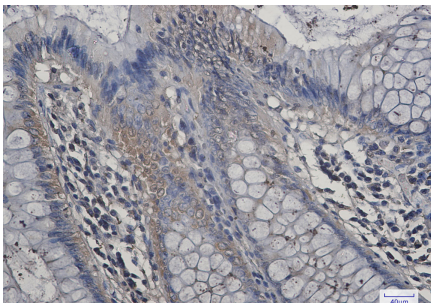
Images



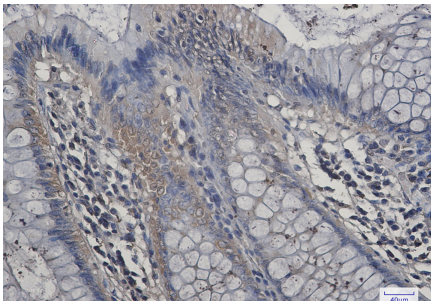
Immunocytochemistry analysis of Aspartate Aminotransferase (green) in U87-MG using Aspartate Aminotransferase antibody,and DAPI(blue).



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.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.