Glutamine Synthetase (PT0057R) PT® Rabbit mAb

Catalog No :	AR1132
Reactivity :	Human; Mouse; Rat;
Applications :	WB;IHC;IF;IP;ELISA
Gene Name :	>>Arginine biosynthesis;>>Alanine, aspartate and glutamate metabolism;>>Glyoxylate and dicarboxylate metabolism;>>Nitrogen metabolism;>>Metabolic pathways;>>Biosynthesis of amino acids;>>Necroptosis;>>Glutamatergic synapse;>>GABAergic synapse
Protein Name :	GLUL
Sequence :	Glutamine synthetase
Human Gene Id :	2752
Human Swiss Prot No :	P15104
Mouse Gene Id :	14645
Mouse Swiss Prot No :	P15105
Rat Gene Id :	24957
Rat Swiss Prot No :	P09606
Specificity :	endogenous
Formulation :	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source :	Monoclonal, rabbit, IgG, Kappa
Dilution :	IHC 1:1000-1:4000,WB 1:1000-1:5000,IF 1:200-1:1000,ELISA 1:5000-1:20000,IP 1:50-1:200,
Purification :	Protein A

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight : 42kD

Observed Band : 42kD

Cell Pathway : Alanine; aspartate and glutamate metabolism;Arginine and proline metabolism;Nitrogen metabolism;

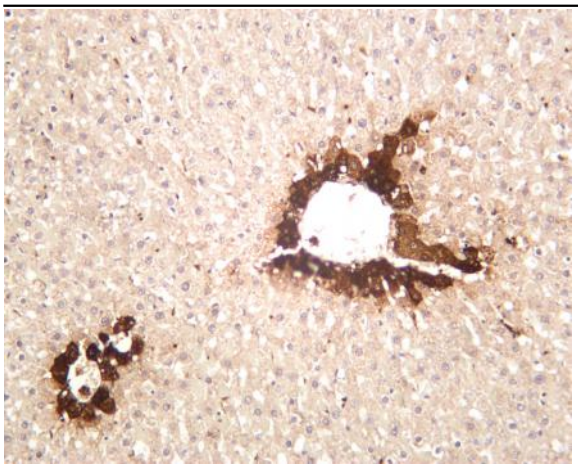
Background : The protein encoded by this gene belongs to the glutamine synthetase family. It catalyzes the synthesis of glutamine from glutamate and ammonia in an ATP-dependent reaction. This protein plays a role in ammonia and glutamate detoxification, acid-base homeostasis, cell signaling, and cell proliferation. Glutamine is an abundant amino acid, and is important to the biosynthesis of several amino acids, pyrimidines, and purines. Mutations in this gene are associated with congenital glutamine deficiency, and overexpression of this gene was observed in some primary liver cancer samples. There are six pseudogenes of this gene found on chromosomes 2, 5, 9, 11, and 12. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2014],

Function : catalytic activity:ATP + L-glutamate + NH(3) = ADP + phosphate + L-glutamine.,disease:Defects in GLUL are the cause of congenital systemic glutamine deficiency (CSGD) [MIM:610015]. CSGD is a rare developmental disorder with severe brain malformation resulting in multi-organ failure and neonatal death. Glutamine is largely absent from affected patients serum, urine and cerebrospinal fluid.,online information:Glutamine synthetase entry,similarity:Belongs to the glutamine synthetase family.,subunit:Homooctamer.,

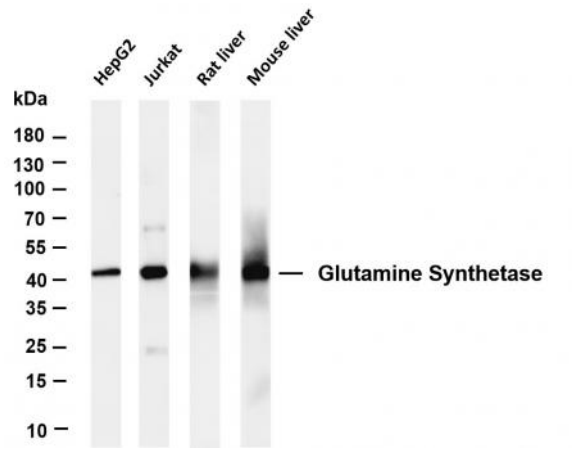
Subcellular Location : Cytoplasm, Membrane

Expression : Expressed in endothelial cells.

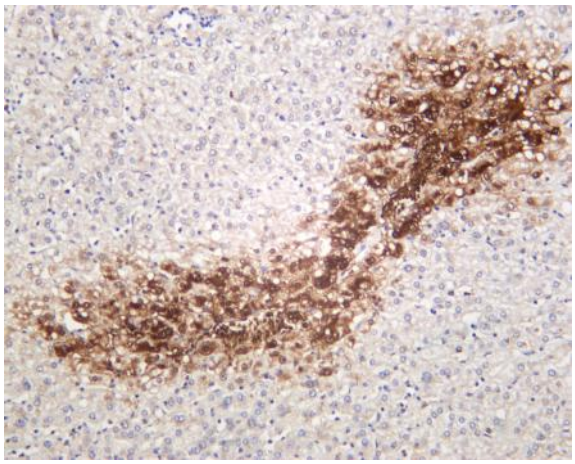
Products Images



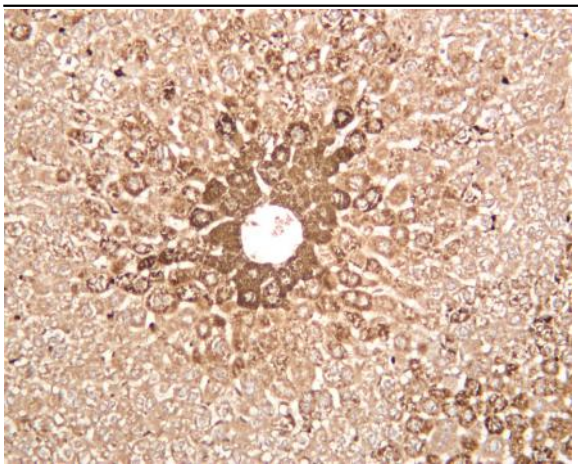
Rat liver was stained with anti-Glutamine Synthetase (PT0057R) rabbit antibody



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Glutamine Synthetase (PT0057R) antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: HepG2 Lane 2: Jurkat Lane 3: Rat liver Lane 4: Mouse liver Predicted band size: 42kDa Observed band size: 42kDa



Human hepatocellular carcinoma was stained with anti-Glutamine Synthetase (PT0057R) rabbit antibody



Mouse liver was stained with anti-Glutamine Synthetase (PT0057R) rabbit antibody