

[KD Validated] Anti-GLUL Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

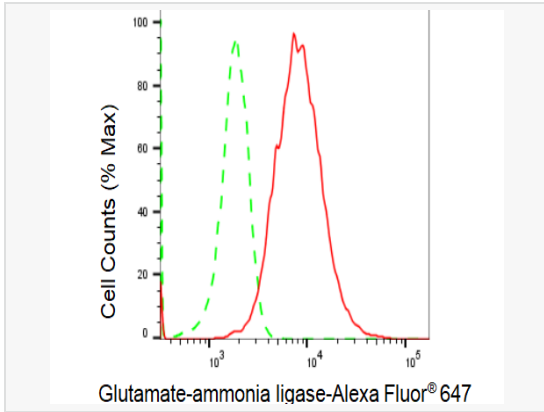
Catalog # R020751

Product Information

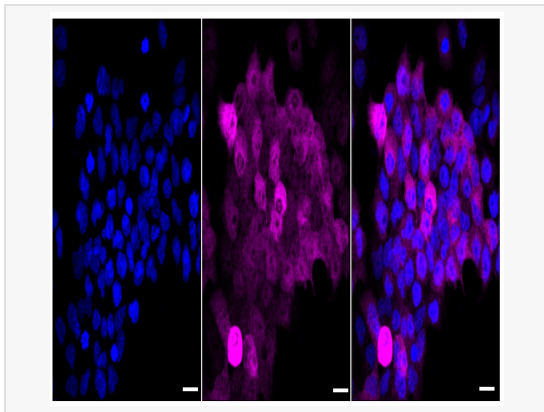
Application	WB, FC, IF (Cell)/ICC
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000
Host	Rabbit
Clonality	Monoclonal
Clone No.	92T65T21
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human Glutamine Synthetase
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	[KD Validated] Anti-GLUL Rabbit mAb [92T65T21] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

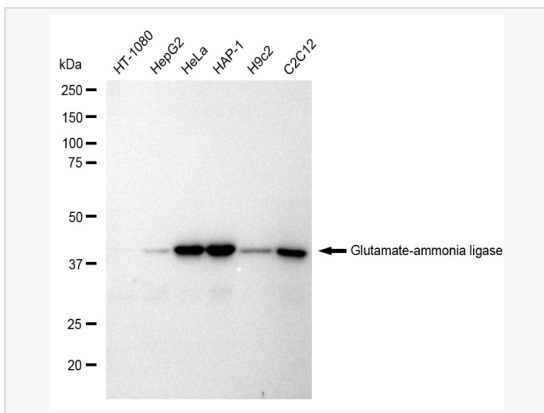
Synonyms	Glutamate-Ammonia Ligase; Glutamine Synthetase; GLNS; Palmitoyltransferase GLUL; EC 6.3.1.2; GS; Glutamate-Ammonia Ligase (Glutamine Synthase); Cell Proliferation-Inducing Protein; Proliferation-Inducing Protein; Glutamate--Ammonia Ligase; Glutamate Decarboxylase; Glutamine Synthase; EC 2.3.1.225; PIG43; PIG59.
Calculated MW	Calculated MW: 42 kDa, Observed MW: 42 kDa
Uniprot ID	P15104
Gene ID	2752
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]
Cellular Location	Cytoplasm.Cytosol.Microsome.Mitochondrion.Cell membrane.Lipid-anchor.Mainly localizes in the cytosol, with a fraction associated with the cell membrane.
Tissue Location	Expressed in endothelial cells.



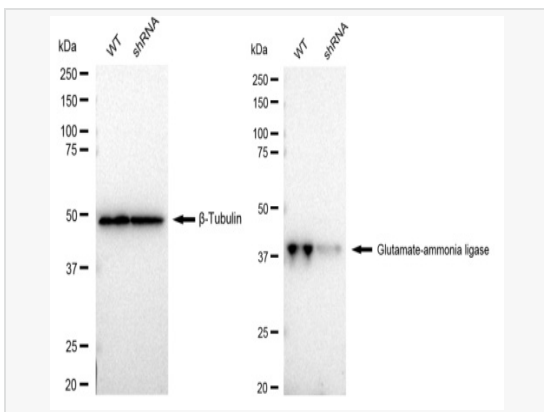
Flow cytometric analysis of Glutamate-ammonia ligase expression in HeLa cells using Glutamate-ammonia ligase antibody (R020751, 1:2,000). Green, isotype control; red, Glutamate-ammonia ligase.



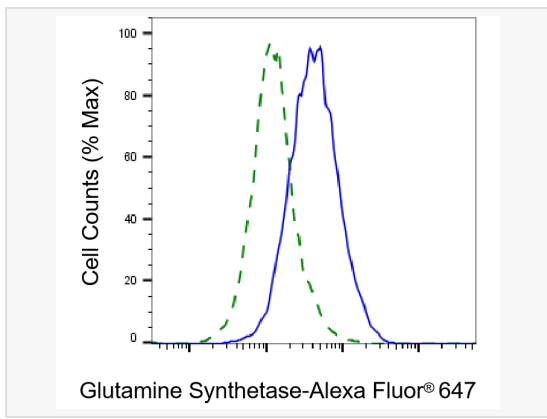
Immunocytochemical staining of HeLa cells with Glutamate-ammonia ligase antibody (R020751, 1:1,000). Nuclei were stained blue with DAPI; Glutamate-ammonia ligase was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.



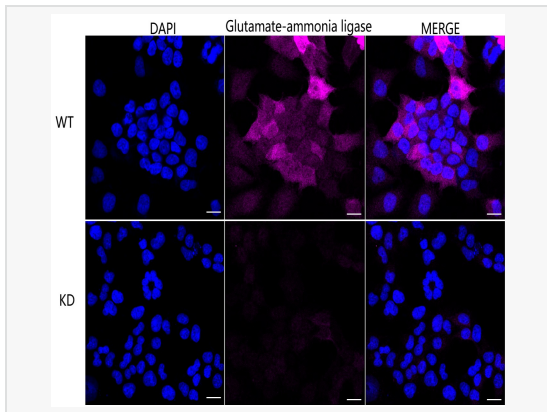
Western blotting analysis using Glutamate-ammonia ligase antibody (R020751). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Glutamate-ammonia ligase antibody (R020751, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Western blotting analysis using Glutamate-ammonia ligase antibody (R020751). Glutamate-ammonia ligase expression in wild type (WT) and Glutamate-ammonia ligase shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with Glutamate-ammonia ligase antibody (R020751, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Validation of Glutamine Synthetase knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Glutamine Synthetase antibody (R020751, 1:2,000) and analyzed using CytoFLEX.



Immunocytochemical staining of HeLa cells using Glutamate-ammonia ligase antibody (R020751, 1:1,000), Top panel: wild-type (WT); Bottom panel: Glutamate-ammonia ligase shRNA knockdown (KD). Nuclei were stained blue with DAPI; Glutamate-ammonia ligase was stained magenta with Alexa Fluor® 647. Scale bar, 20 μ m. Permeabilization: Triton.