Product Name: KD-Validated Glutaminase Recombinant Rabbit Monoclonal Antibody
Catalog #: KVAb00681
For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 73.5kDa

Antigen Information

Gene Name	GLS
Alternative Names	GLS; Glutaminase; GLS1; K-Glutaminase; KIAA0838; GAC; GAM; KGA; Glutaminase Kidney Isoform, Mitochondrial; L-Glutamine Amidohydrolase; Glutaminase C; EC 3.5.1.2; Glutaminase, Phosphate; Activated; CASGID; EIEE71; AAD20; DEE71; GDPAG
Gene ID	2744.0
SwissProt ID	O94925
Immunogen	A synthesized peptide derived from human Glutaminase

Background

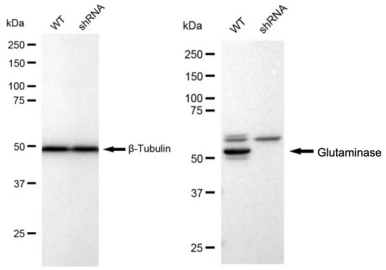
This gene encodes the K-type mitochondrial glutaminase. The encoded protein is an phosphate-activated amidohydrolase that catalyzes the hydrolysis of glutamine to glutamate and ammonia. This protein is primarily expressed in the brain and kidney

plays an essential role in generating energy for metabolism, synthesizing the brain neurotransmitter glutamate and maintaining acid-base balance in the kidney. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Jan 2012]

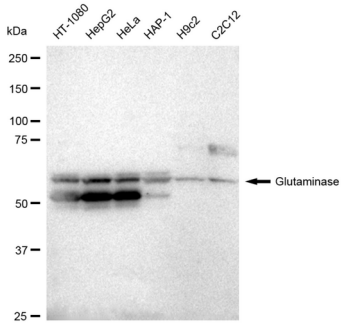
Research Area

Tags & Cell Markers,Signal Transduction,Metabolism

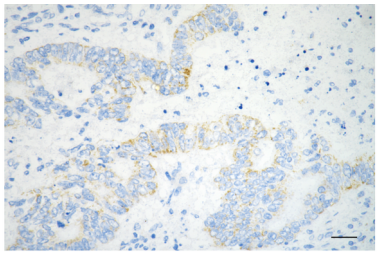
Image Data



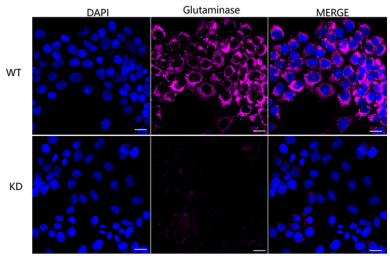
Western blotting analysis using Glutaminase antibody (KVAb00681). Glutaminase expression in wild type (WT) and glutaminase shRNA knockdown (KD) Hela cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with Glutaminase antibody (KVAb00681, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



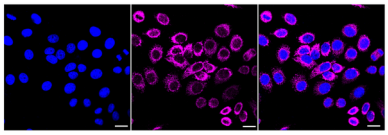
Western blotting analysis using Glutaminase antibody (KVAb00681). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Glutaminase antibody (KVAb00681, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively. Glutaminase, caseinolytic mitochondrial matrix peptidase chaperone subunit X.



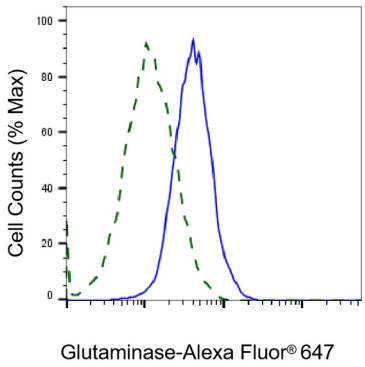
Immunohistochemistry was performed on paraffin-embedded human sigmoid colon carcinoma using glutaminase antibody (KVAb00681, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



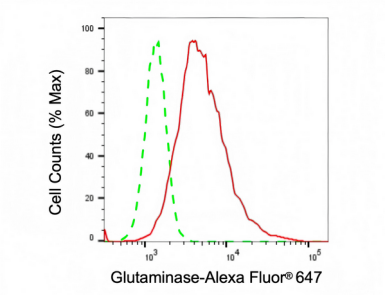
Immunocytochemical staining of HeLa cells using Glutaminase antibody (KVAb00681, 1:1,000), Top panel: wild-type (WT); Bottom panal: Glutaminase shRNA knockdown (KD). Nuclei were stained blue with DAPI; Glutaminase was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm. Permeabilization: Triton.



Immunocytochemical staining of HepG2 cells with Glutaminase antibody (KVAb00681, 1:1,000). Nuclei were stained blue with DAPI; Glutaminase 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.



Validation of Glutaminase knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Glutaminase antibody (KVAb00681, 1:2,000) and analyzed using CytoFLEX.



Flow cytometric analysis of glutaminase expression in HepG2 cells using glutaminase antibody (KVAb00681, 1:2,000). Green, isotype control; red, glutaminase.