

Product Name: KD-Validated Glutathione Synthetase Recombinant Rabbit Monoclonal Antibody

Catalog #: KVA00169

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
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
Molecular Weight	Calculated MW: 52.4kDa

Antigen Information

Gene Name	GSS
Alternative Names	GSS; Glutathione Synthetase; Glutathione Synthase; GSH Synthetase; EC 6.3.2.3; GSH-S; HEL-S-64p; HEL-S-88n; GSHS
Gene ID	2937.0
SwissProt ID	P48637
Immunogen	A synthesized peptide derived from human Glutathione Synthetase

Background

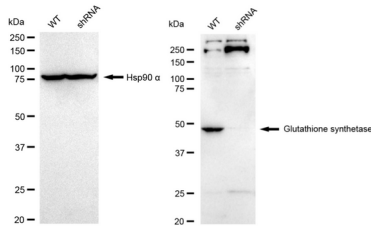
Glutathione is important for a variety of biological functions, including protection of cells from oxidative damage by free radicals, detoxification of xenobiotics, and membrane transport. The protein encoded by this gene functions as a homodimer to

catalyze the second step of glutathione biosynthesis, which is the ATP-dependent conversion of gamma-L-glutamyl-L-cysteine to glutathione. Defects in this gene are a cause of glutathione synthetase deficiency. [provided by RefSeq, Jul 2008]

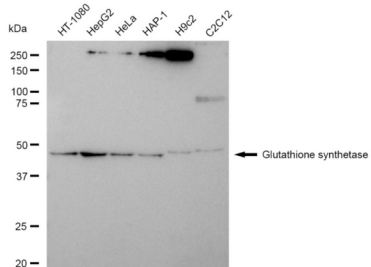
Research Area

Signal Transduction, Neuroscience, Cell Biology, Metabolism

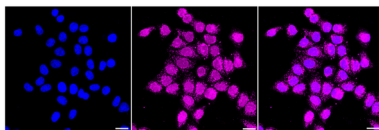
Image Data



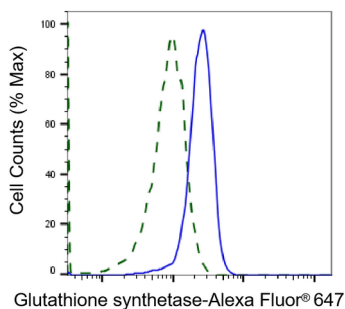
Western blotting analysis using glutathione synthetase antibody (KVA00169). Glutathione Synthetase expression in wild type (WT) and glutathione synthetase (GSS) shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with glutathione synthetase antibody (KVA00169, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



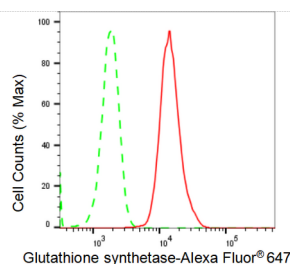
Western blotting analysis using glutathione synthetase antibody (KVA00169). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with glutathione synthetase antibody (KVA00169, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HepG2 cells with Glutathione synthetase antibody (KVA00169, 1:1,000). Nuclei were stained blue with DAPI; Glutathione synthetase 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 Glutathione synthetase knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Glutathione synthetase antibody (KVA00169, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Glutathione synthetase expression in HepG2 cells using Glutathione synthetase antibody (KVA00169, 1:2,000). Green, isotype control; red, Glutathione synthetase.