
Product Name: KD-Validated Glutathione-Disulfide Reductase Recombinant Rabbit Monoclonal Antibody**Catalog #: KVA01525**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,M
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: 56.3kDa

Antigen Information

Gene Name	GSR
Alternative Names	GSR; Glutathione-Disulfide Reductase; Glutathione Reductase, Mitochondrial; Glutathione S-Reductase; EC 1.8.1.7; GRase; GR; Epididymis Secretory Sperm Binding Protein Li 122m; Epididymis Luminal Protein 75; Glutathione Reductase; HEL-S-122m; EC 1.8.1; HEL-75; GSRD; GLUR; GRD1
Gene ID	2936.0
SwissProt ID	P00390
Immunogen	A synthesized peptide derived from human GLUR

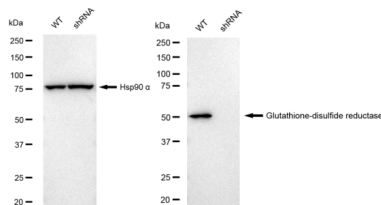
Background

This gene encodes a member of the class-I pyridine nucleotide-disulfide oxidoreductase family. This enzyme is a homodimeric flavoprotein. It is a central enzyme of cellular antioxidant defense, and reduces oxidized glutathione disulfide (GSSG) to the sulfhydryl form GSH, which is an important cellular antioxidant. Rare mutations in this gene result in hereditary glutathione reductase deficiency. Multiple alternatively spliced transcript variants encoding different isoforms have been found. [provided by RefSeq, Aug 2010]

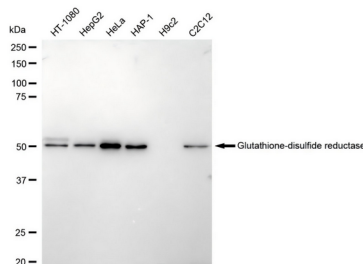
Research Area

Signal Transduction, Metabolism

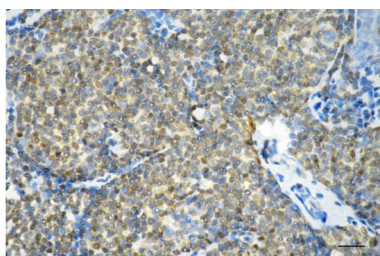
Image Data



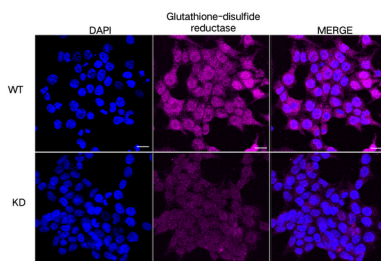
Western blotting analysis using Glutathione-disulfide reductase antibody (KVA01525). Glutathione-disulfide reductase expression in wild type (WT) and glutathione-disulfide reductase shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with Glutathione-disulfide reductase antibody (KVA01525, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



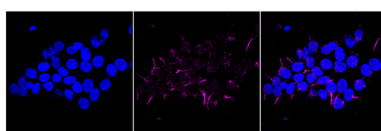
Western blotting analysis using Glutathione-disulfide reductase antibody (KVA01525). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Glutathione-disulfide reductase antibody (KVA01525, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



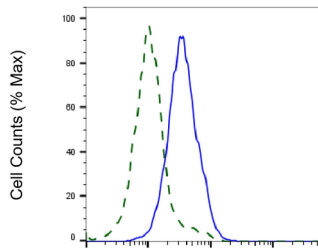
Immunohistochemistry was performed on paraffin-embedded human breast carcinoma using glutathione-disulfide reductase antibody (KVA01525, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



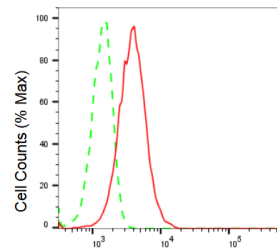
Immunocytochemical staining of HeLa cells using Glutathione-disulfide reductase antibody (KVA01525, 1:1,000), Top panel: wild-type (WT); Bottom panel: Glutathione-disulfide reductase shRNA knockdown (KD). Nuclei were stained blue with DAPI; Glutathione-disulfide reductase was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm. Permeabilization: Triton.



Immunocytochemical staining of HeLa cells with Glutathione-disulfide reductase antibody (KVA01525, 1:1,000). Nuclei were stained blue with DAPI; Glutathione-disulfide reductase was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Very low. Scale bar: 20 µm.



Glutathione-disulfide reductase-Alexa Fluor® 647



Glutathione-disulfide reductase-Alexa Fluor® 647

Validation of Glutathione-disulfide reductase knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Glutathione-disulfide reductase antibody (KVA01525, 1:2,000) and analyzed using CytoFLEX.

Flow cytometric analysis of Glutathione-disulfide reductase expression in HeLa cells using Glutathione-disulfide reductase antibody (KVA01525, 1:2,000). Green, isotype control; red, Glutathione-disulfide reductase.