
Product Name: KD-Validated Glucose-6-Phosphate Dehydrogenase Recombinant Rabbit Monoclonal Antibody

Catalog #: KVA00631

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human
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: 59.3kDa

Antigen Information

Gene Name	G6PD
Alternative Names	G6PD; Glucose-6-Phosphate Dehydrogenase; G6PD1; Glucose-6-Phosphate 1-Dehydrogenase; EC 1.1.1.49; Epididymis Secretory Sperm Binding Protein
Gene ID	2539.0
SwissProt ID	P11413
Immunogen	A synthesized peptide derived from human G6PD

Background

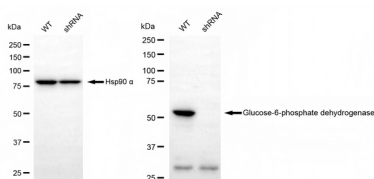
This gene encodes glucose-6-phosphate dehydrogenase. This protein is a cytosolic enzyme encoded by a housekeeping X-linked gene whose main function is to produce NADPH, a key electron donor in the defense against oxidizing agents and in

reductive biosynthetic reactions. G6PD is remarkable for its genetic diversity. Many variants of G6PD, mostly produced from missense mutations, have been described with wide ranging levels of enzyme activity and associated clinical symptoms. G6PD deficiency may cause neonatal jaundice, acute hemolysis, or severe chronic non-spherocytic hemolytic anemia. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

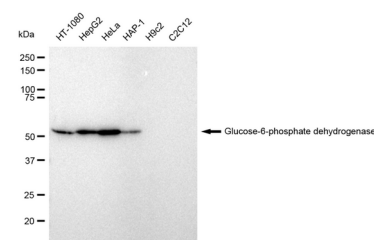
Research Area

Signal Transduction, Cardiovascular, Cancer, Metabolism

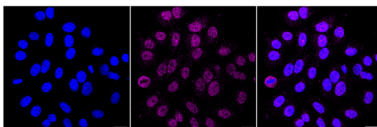
Image Data



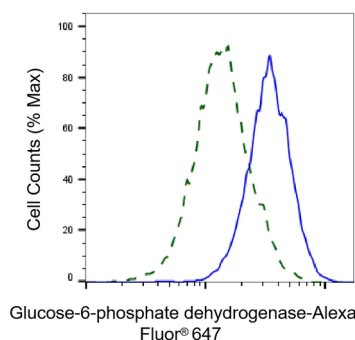
Western blotting analysis using glucose-6-phosphate dehydrogenase antibody (KVA00631). Glucose-6-phosphate dehydrogenase expression in wild type (WT) and glucose-6-phosphate dehydrogenase (G6PD) shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with glucose-6-phosphate dehydrogenase antibody (KVA00631, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



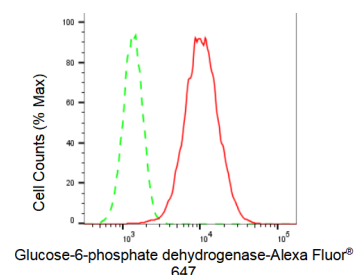
Western blotting analysis using Glucose-6-phosphate dehydrogenase antibody (KVA00631). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Glucose-6-phosphate dehydrogenase antibody (KVA00631, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HepG2 cells with Glucose-6-phosphate dehydrogenase antibody (KVA00631, 1:1,000). Nuclei were stained blue with DAPI; Glucose-6-phosphate dehydrogenase 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.



Validation of Glucose-6-phosphate dehydrogenase knockdown using flow cytometry. Wild-type (WT, Blue) and knockdown (KD, Green) HeLa cells were stained with Glucose-6-phosphate dehydrogenase antibody (KVA00631, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Glucose-6-phosphate dehydrogenase expression in HepG2 cells using Glucose-6-phosphate dehydrogenase antibody (KVA00631, 1:2,000). Green, isotype control; red, Glucose-6-phosphate dehydrogenase.

