

Product Name: KD-Validated Phosphogluconate Dehydrogenase Recombinant Rabbit Monoclonal Antibody

Catalog #: KVA01345

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: 53.1kDa

Antigen Information

Gene Name	PGD
Alternative Names	PGD; Phosphogluconate Dehydrogenase; 6-Phosphogluconate Dehydrogenase, Decarboxylating; EC 1.1.1.44; 6PGD; PGDH
Gene ID	5226.0
SwissProt ID	P52209
Immunogen	A synthesized peptide derived from human PGD

Background

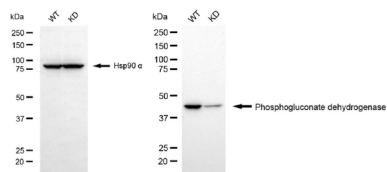
6-phosphogluconate dehydrogenase is the second dehydrogenase in the pentose phosphate shunt. Deficiency of this enzyme is generally asymptomatic, and the inheritance of this disorder is autosomal dominant. Hemolysis results from combined

deficiency of 6-phosphogluconate dehydrogenase and 6-phosphogluconolactonase suggesting a synergism of the two enzymopathies. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2015]

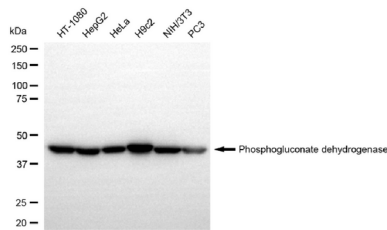
Research Area

Signal Transduction, Metabolism

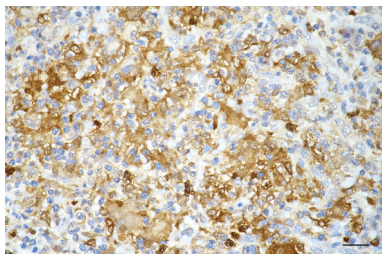
Image Data



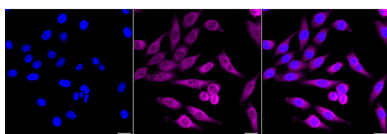
Western blotting analysis using phosphogluconate dehydrogenase antibody (KVA01345). Phosphogluconate dehydrogenase expression in wild type (WT) and phosphogluconate dehydrogenase (PGD) knockdown (KD) HSHC cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with phosphogluconate dehydrogenase antibody (KVA01345, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



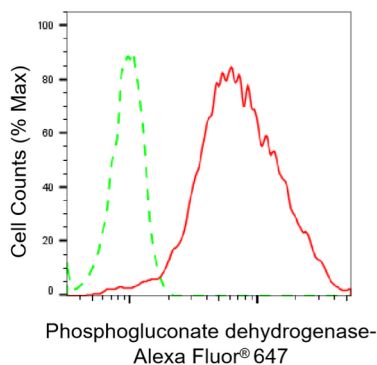
Western blotting analysis using phosphogluconate dehydrogenase antibody (KVA01345). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with phosphogluconate dehydrogenase antibody (KVA01345, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunohistochemistry was performed on paraffin-embedded human hepatocarcinoma using phosphogluconate dehydrogenase antibody (KVA01345, 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 HepG2 cells with Phosphogluconate dehydrogenase antibody (KVA01345, 1:1,000). Nuclei were stained blue with DAPI; Phosphogluconate dehydrogenase 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.



Flow cytometric analysis of Phosphogluconate dehydrogenase expression in HepG2 cells using Phosphogluconate dehydrogenase antibody (KVA01345, 1:2,000). Green, isotype control; red, Phosphogluconate dehydrogenase.