Product Name: KD-Validated Prolyl 4-hydroxylase subunit beta Recombinant Rabbit Monoclonal Antibody
Catalog #: KVAb01529
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: 57.1kDa

Antigen Information

Gene Name	P4HB
Alternative Names	Prolyl 4-Hydroxylase Subunit Beta; PDIA1; PDI; ERBA2L; PROHB; PO4HB; PO4DB; DSI; GIT; Procollagen-Proline, 2-Oxoglutarate 4-Dioxygenase (Proline 4-Hydroxylase), Beta Polypeptide; Protein Disulfide Isomerase Family A, Member; Protein Disulfide Isomerase-Associated; Cellular Thyroid Hormone-Binding Protein; Prolyl 4-Hydroxylase, Beta Polypeptide; Collagen Prolyl 4-Hydroxylase Beta; Protein Disulfide-Isomerase; EC 5.3.4.1; P4Hbeta; P55; Procollagen-Proline, 2-Oxoglutarate 4-Dioxygenase (Proline 4-Hydroxylase), Beta Polypeptide (Protein Disulfide Isomerase; Thyroid Hormone Binding Protein P55); Procollagen-Proline, 2-Oxoglutarate 4-Dioxygenase (Proline 4-Hydroxylase), Beta Polypeptide (Protein Disulfide Isomerase-Associated 1) Protein Disulfide

	Isomerase/Oxidoreductase; Glutathione-Insulin Transhydrogenase; Thyroid Hormone-Binding Protein P55; Testicular Secretory Protein Li 32; Protocollagen Hydroxylase; P4HBETA; CLCRP1; PHDB;
Gene ID	5034.0
SwissProt ID	P07237
Immunogen	A synthesized peptide derived from human P4HB

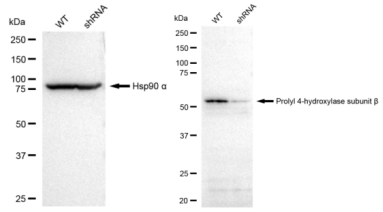
Background

This gene encodes the beta subunit of prolyl 4-hydroxylase, a highly abundant multifunctional enzyme that belongs to the protein disulfide isomerase family. When present as a tetramer consisting of two alpha and two beta subunits, this enzyme is involved in hydroxylation of prolyl residues in preprocollagen. This enzyme is also a disulfide isomerase containing two thioredoxin domains that catalyze the formation, breakage and rearrangement of disulfide bonds. Other known functions include its ability to act as a chaperone that inhibits aggregation of misfolded proteins in a concentration-dependent manner, its ability to bind thyroid hormone, its role in both the influx and efflux of S-nitrosothiol-bound nitric oxide, and its function as a subunit of the microsomal triglyceride transfer protein complex. [provided by RefSeq, Jul 2008]

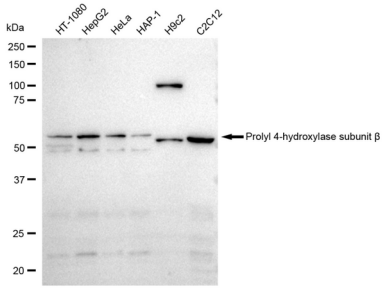
Research Area

Signal Transduction,Cancer,Metabolism

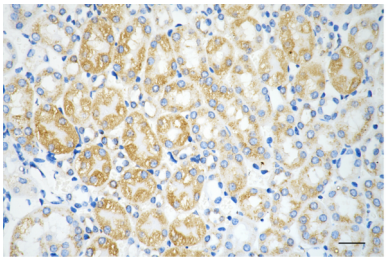
Image Data



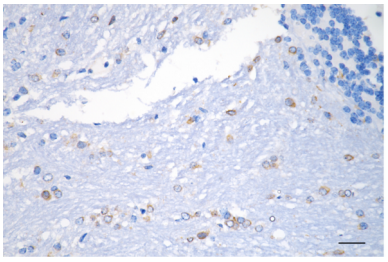
Western blotting analysis using Prolyl 4-hydroxylase subunit beta antibody (KVAb01529). Prolyl 4-hydroxylase subunit beta expression in wild type (WT) and prolyl 4-hydroxylase subunit beta shRNA knockdown (KD) HT1080 cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with Prolyl 4-hydroxylase subunit beta antibody (KVAb01529, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



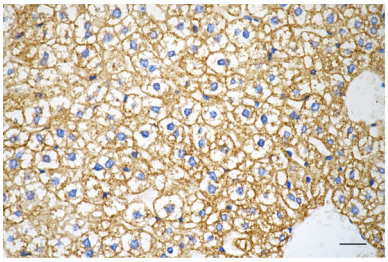
Western blotting analysis using Prolyl 4-hydroxylase subunit beta antibody (KVAb01529). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Prolyl 4-hydroxylase subunit beta antibody (KVAb01529, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



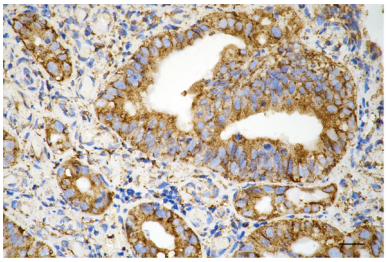
Immunohistochemistry was performed on paraffin-embedded mouse kidney using prolyl 4-hydroxylase subunit beta antibody (KVAb01529, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 μm.



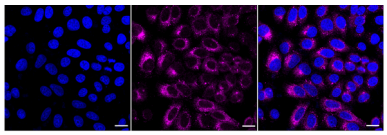
Immunohistochemistry was performed on paraffin-embedded mouse brain using prolyl 4-hydroxylase subunit beta antibody (KVAb01529, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 μm.



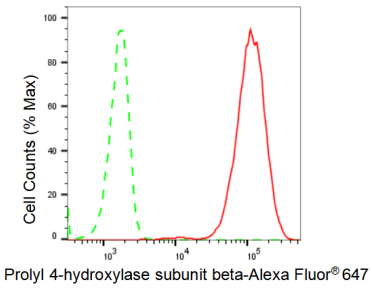
Immunohistochemistry was performed on paraffin-embedded mouse liver using prolyl 4-hydroxylase subunit beta antibody (KVAb01529, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 μm.



Immunohistochemistry was performed on paraffin-embedded human sigmoid colon carcinoma using prolyl 4-hydroxylase subunit beta antibody (KVAb01529, 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 prolyl 4-hydroxylase subunit beta antibody (KVAb01529, 1:1,000). Nuclei were stained blue with DAPI; Prolyl 4-hydroxylase subunit beta 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 Prolyl 4-hydroxylase subunit beta expression in C2C12 cells using Prolyl 4-hydroxylase subunit beta antibody (KVAb01529, 1:2,000). Green, isotype control; red, Prolyl 4-hydroxylase subunit beta.