
Product Name: KD-Validated Cytochrome B5 Reductase 3 Recombinant Rabbit Monoclonal Antibody**Catalog #: KVAAb01444**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,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: 34.2kDa

Antigen Information

Gene Name	CYB5R3
Alternative Names	CYB5R3; Cytochrome B5 Reductase 3; B5R; NADH-Cytochrome B5 Reductase 3; DIA1; Diaphorase-1; EC 1.6.2.2; NADH-Cytochrome B5 Reductase 3 Membrane-Bound Form; Diaphorase (NADH) (Cytochrome B-5 Reductase; NADH-Cytochrome B5 Reductase 3 Soluble Form; Mutant NADH-Cytochrome B5 Reductase; Cytochrome B5 Reductase
Gene ID	1727.0
SwissProt ID	P00387
Immunogen	A synthesized peptide derived from human CYB5R3

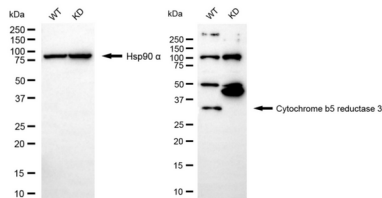
Background

This gene encodes cytochrome b5 reductase, which includes a membrane-bound form in somatic cells (anchored in the endoplasmic reticulum, mitochondrial and other membranes) and a soluble form in erythrocytes. The membrane-bound form exists mainly on the cytoplasmic side of the endoplasmic reticulum and functions in desaturation and elongation of fatty acids, in cholesterol biosynthesis, and in drug metabolism. The erythrocyte form is located in a soluble fraction of circulating erythrocytes and is involved in methemoglobin reduction. The membrane-bound form has both membrane-binding and catalytic domains, while the soluble form has only the catalytic domain. Alternate splicing results in multiple transcript variants. Mutations in this gene cause methemoglobinemias. [provided by RefSeq, Jan 2010]

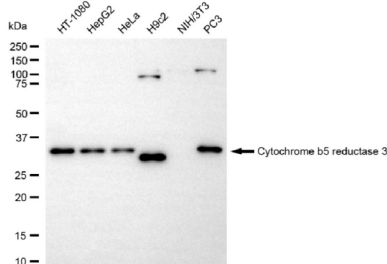
Research Area

Cardiovascular,Signal Transduction,Metabolism

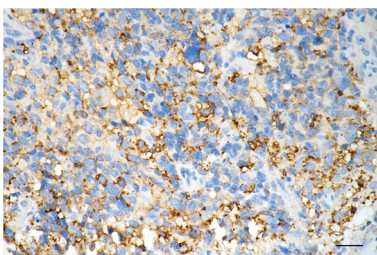
Image Data



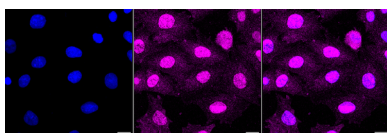
Western blotting analysis using cytochrome b5 reductase 3 antibody (KVA01444). Cytochrome b5 reductase 3 expression in wild type (WT) and cytochrome b5 reductase 3 (CYB5R3) knockdown (KD) HSHC cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with cytochrome b5 reductase 3 antibody (KVA01444, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



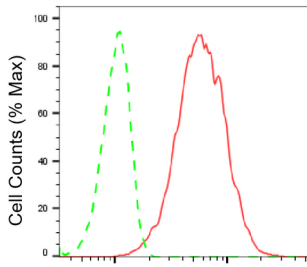
Western blotting analysis using cytochrome b5 reductase 3 antibody (KVA01444). Total cell lysates (20 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with cytochrome b5 reductase 3 antibody (KVA01444, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunohistochemistry was performed on paraffin-embedded human glioblastoma using cytochrome b5 reductase 3 antibody (KVA01444, 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 H9c2 cells with Cytochrome b5 reductase 3 antibody (KVA01444, 1:1,000). Nuclei were stained blue with DAPI; Cytochrome b5 reductase 3 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.



Cytochrome b5 reductase 3-Alexa Fluor® 647

Flow cytometric analysis of Cytochrome b5 reductase 3 expression in H9c2 cells using Cytochrome b5 reductase 3 antibody (KVA01444, 1:2,000). Green, isotype control; red, Cytochrome b5 reductase 3.