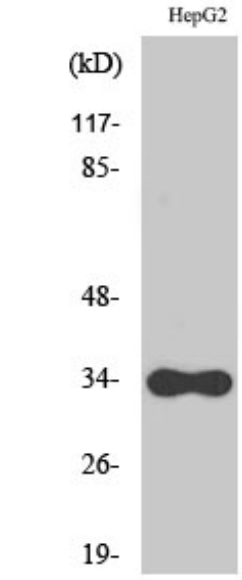
CYB5R3 Polyclonal Antibody

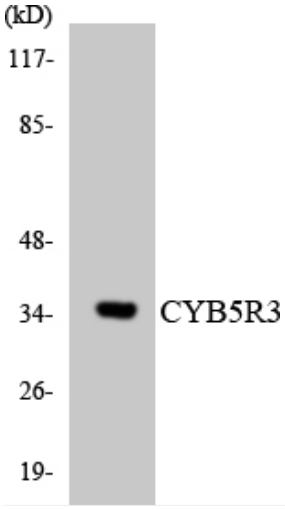
Catalog No	BYab-02558
Isotype	IgG
Reactivity	Human;Rat;Mouse;
Applications	WB;IHC;IF;ELISA
Gene Name	CYB5R3
Protein Name	NADH-cytochrome b5 reductase 3
Immunogen	The antiserum was produced against synthesized peptide derived from human CYB5R3. AA range:137-186
Specificity	CYB5R3 Polyclonal Antibody detects endogenous levels of CYB5R3 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/40000.. IF 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	CYB5R3; DIA1; NADH-cytochrome b5 reductase 3; B5R; Cytochrome b5 reductase; Diaphorase-1
Observed Band	34kD
Cell Pathway	[Isoform 1]: Endoplasmic reticulum membrane; Lipid-anchor; Cytoplasmic side. Mitochondrion outer membrane; Lipid-anchor; Cytoplasmic side.; [Isoform 2]: Cytoplasm. Produces the soluble form found in erythrocytes.
Tissue Specificity	Isoform 2 is expressed at late stages of erythroid maturation.
Function	catalytic activity:NADH + 2 ferricytochrome b5 = NAD(+) + H(+) + 2 ferrocytochrome b5.,cofactor:FAD.,disease:Defects in CYB5R3 are the cause of hereditary methemoglobinemia (HM) [MIM:250800]. There are three forms of this disease: type 1 (HM1) in which the enzyme is only deficient in erythrocytes with a mild cyanosis; type 2 (HM2), in which the enzyme is completely deficient; type 3 (HM3) where the deficiency is seen in all blood cells. Type 2 is a severe form accompanied with mental retardation and neurological impairment.,function:Desaturation and elongation of fatty acids, cholesterol biosynthesis, drug metabolism, and, in erythrocyte, methemoglobin

	reduction.,polymorphism:Ser-117 seems to only be found in persons of African origin. The allele frequency is 0.23 in African Americans. It was not found in Caucasians, Asians, Indo-Aryans, or Arabs. There seems to be no effect on the enzym
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],
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

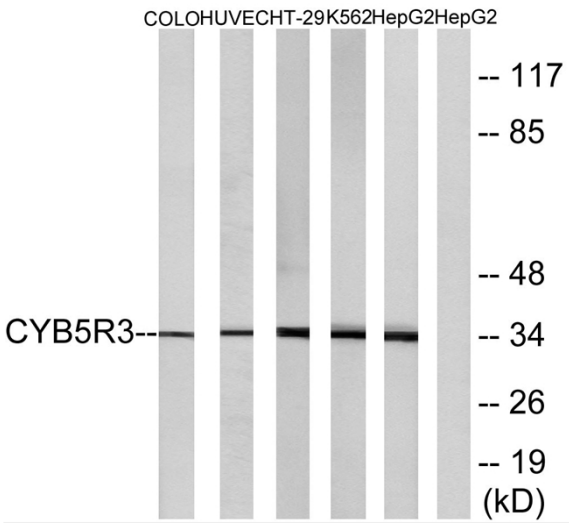
Products Images



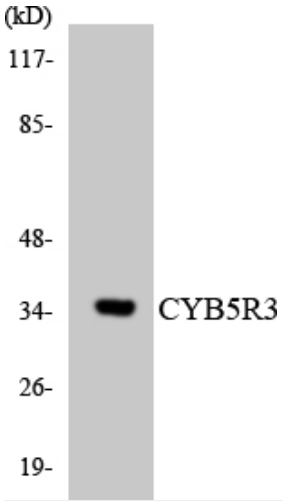
Western Blot analysis of various cells using CYB5R3 Polyclonal Antibody



Immunohistochemistry analysis of paraffin-embedded human placenta tissue, using CYB5R3 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from HepG2, COLO, HUVEC, HT-29, and K562 cells, using CYB5R3 Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from K562 cells using CYB5R3 antibody.