

# PRODUCT DATA SHEET

Bioworld Technology,Inc.

# **CYB5R3 Polyclonal Antibody**

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Catalog: BS65716 Host: Rabbit Reactivity: man, Mouse, Rat, Chicken, Dog, Pi

g,Cow,Horse,Sheep,

### **BackGround:**

CYB5R3 is a 301 amino acid protein encoded by the human gene CYB5R3. CYB5R3 belongs to the flavoprotein pyridine nucleotide cytochrome reductase family and has two naturally occuring isoforms. Isoform 1 is anchored to the cytoplasmic side of the endoplasmic reticulum membrane and mitochondrion outer membrane, while isoform 2 is the soluble form found in erythrocytes. CYB5R3 is involved in the desaturation and elongation of fatty acids, cholesterol biosynthesis, drug metabolism and, in erythrocytes, methemoglobin reduction. A serine residue at position 117 seems to only be found in persons of African origin. The allele frequency is 0.23 in African Americans. It is not found in Caucasians, Asians, Indo-Aryans or Arabs. This difference seems to have no effect on the enzyme activity. Defects in CYB5R3 are the cause of hereditary methemoglobinemia (HM). 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; and type 3 (HM3), where the deficiency is seen in all blood cells. Type 2 is a severe form accompanied by mental retardation and neurological impairment.

### **Product:**

0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.

# **Molecular Weight:**

34 kD

#### **Swiss-Prot:**

P00387

## **Purification&Purity:**

affinity purified by Protein A

# **Applications:**

WB=1:500-2000

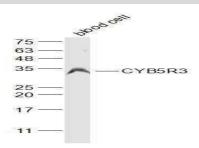
## **Storage&Stability:**

Store at  $4 \, \mathbb{C}$  short term. Aliquot and store at  $-20 \, \mathbb{C}$  long term. Avoid freeze-thaw cycles.

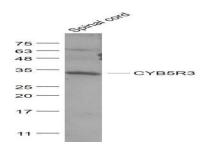
# **Specificity:**

CYB5R3 Polyclonal Antibody detects endogenous levels of CYB5R3 protein.

#### **DATA:**



Primary: Anti-CYB5R3 at 1/1000 dilution



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#### Note:

For research use only, not for use in diagnostic procedure.

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