

# Myoglobin

*Myoglobin Human*  
RCP1440

## Product Overview

Name Myoglobin

### Description

Myoglobin Human

Accession (Primary) [P02144](#)

### Immunogen

Anti-human Myoglobin, is derived from hybridization of mouse FO myeloma cells with spleen cells from BALB/c mice immunized with recombinant human Myoglobin amino acids 1-154 purified from E. coli.

### Synonyms

Myoglobin, MB, PVALB, MGC13548.

### Introduction

Myoglobin is a member of the globin superfamily and can be found in skeletal and cardiac muscles. It is a haemoprotein that contributes to intracellular oxygen storage and transcellular facilitated diffusion of oxygen. Myoglobin has a single-chain globular structure of 153 amino acids, containing a heme prosthetic group (iron-containing porphyrin) in the core around which the remaining apoprotein folds. Myoglobin has 8 alpha helices and a hydrophobic core. Myoglobin's molecular weight is 16.7 kDa, and it is the primary oxygen-carrying pigment of muscle tissues. The binding of oxygen in myoglobin is different from the cooperative oxygen binding in hemoglobin, since positive collaboration is a property of multimeric/oligomeric proteins only. Instead, the binding of oxygen by myoglobin is uninfluenced by the oxygen pressure in the surrounding tissue. Myoglobin is frequently referred to as having an "instant binding tenacity" to oxygen given its hyperbolic oxygen dissociation curve. Different organisms are able to hold their breaths longer due to high concentrations of myoglobin in their muscle cells. Myoglobin is responsible for the pigments that make meat red. The color of the meat is partly determined by the charge of the iron atom in myoglobin and the oxygen attached to it. Myoglobin is found in Type I muscle, Type II A and Type II B, but it is mostly deemed that myoglobin is not found in smooth muscle. Myoglobin is discharged from damaged muscle tissue (rhabdomyolysis), which contains very high concentrations of myoglobin. Even though the released myoglobin is filtered by the kidneys, it is toxic to the renal tubular epithelium and thus may cause acute renal failure.

### Formulation

1mg/ml containing PBS, pH-7.4, & 0.1% Sodium Azide.

### Applications

The antibody has been tested by ELISA, Western blot analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results. Recommended dilution range for Western blot analysis is 1:1000.

**Type**

Mouse Anti Human Monoclonal.

**Clone**

PAT6E10.

**Ig Subclass**

Mouse IgG 1 heavy chain and k light chain.

**Purification Method**

Myoglobin antibody was purified from mouse ascitic fluids by protein-G affinity chromatography.

**Storage Procedures**

For periods up to 1 month store at 4°C, for longer periods of time, store at -20°C. Prevent freeze thaw cycles.

**Precautions**

Myoglobin is for research use only and not for use in diagnostic or therapeutic procedures.

**Target Information: ( [P02144](#) )**