

Recombinant Human Myoglobin (rHuMyoglobin)

PrimeGene Technical Data Sheet

| | |
|---------------------------------|---|
| Catalog Number: | 602-32 |
| Source: | <i>E.coli</i> |
| Molecular Weight: | Approximately 17.1 kDa, a single non-glycosylated polypeptide chain containing 153 amino acids. |
| Quantity: | 20µg/100µg/1000µg |
| AA Sequence: | GLSDGEWQLV LNVWGKVEAD IPGHGQEVLI RLFKGHPEL EKFDKFKHLK SEDEMKASED LKKHGATVLT ALGGILKKKG HHEAEIKPLA QSHATKHKIP VKYLEFISEC IIQVLQSKHP GDFGADAQGA MNKALELFRK DMASNYKELG FQG |
| Purity: | > 95 % by SDS-PAGE. |
| Biological Activity: | Data not available. |
| Physical Appearance: | Sterile red liquid. |
| Formulation: | Supplied as a 0.2 µm filtered solution in 25 mM Tris-HCl, pH 8.0, with 50 % glycerol. |
| Endotoxin: | Less than 1.0 EU/µg of rHuMyoglobin as determined by LAL method. |
| Stability & Storage: | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 6 months from date of receipt, -20 to -70 °C as supplied.● 3 months, -20 to -70 °C under sterile conditions after opening. |
| Usage: | This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. |

Human Myoglobin protein

Myoglobin is a member of the globin superfamily, It can be found in skeletal and cardiac muscles. Myoglobin contributes to intracellular oxygen storage and transcellular facilitated diffusion of oxygen is a haemoprotein. Myoglobin contain 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 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.