

## Myoglobin, His, Human

Myoglobin, a member of the globin family of proteins, is a cytosolic oxygen-binding protein that regulates the storage and diffusion of oxygen within myocytes. The largest expression of myoglobin is in skeletal and cardiac muscle. Myoglobin exhibits various functions in relation to the muscular oxygen supply, such as oxygen storage, facilitated diffusion, and myoglobin-mediated oxidative phosphorylation. Myoglobin is the primary oxygen-carrying pigment of muscle tissues. High concentrations of myoglobin in muscle cells allow organisms to hold their breath for a longer period of time. Diving mammals such as whales and seals have muscles with a particularly high abundance of myoglobin. Myoglobin is found in Type I, Type II A and Type II B muscle; however several studies indicate myoglobinis not found in smooth muscle.

Species	Human
Protein Construction	Expressed with additional N-terminal sequence
	(MHHHHHDDDDK).
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	$< 0.2 EU/\mu g$ of protein by gel clotting method
Expression System	E. coli
Apparent Molecular Weight	~18.7 kDa, on SDS-PAGE under reducing conditions.
Formulation	Supplied as a 0.22 $\mu m$ filtered solution in 20 mM Tris-HCl, 1
	mM DTT, 100 mM NaCl, 20% glycerol, pH 8.0.
Concentration	Please refer to the COA for the specific lot.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months
	at -20°C or below and 1-2 weeks at 4°C. For long term storage,
	aliquot and store at -70°C or below. Avoid repeated
	freeze-thaw cycles.