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# Recombinant Human
# Myoglobin (MB)

| Catalog No. | Size | Species | Protein Accession No. |
|---|---|---|---|
| 230-00032 | 10, 50, 100 µg | Human | AAX36993 |

## *Synonyms*
Myoglobin, MB , PVALB.

## *Description*
**Myoglobin** (**MB**) is an iron- and oxygen-binding protein found in the muscle tissue of vertebrates and almost all mammals. Myoglobin is a single-chain globular protein containing a heme (iron-containing porphyrin) prosthetic group in the center. The oxygen binding of myoglobin is unaffected by the oxygen pressure in the surrounding tissue. The only releasing time of myoglobin in the bloodstream happens after muscle injury. If myoglobin presents in blood, it will be considered to be abnormal.

## *Preparation*
The gene encoding the full length of human myoglobin protein was cloned and expressed in *Escherichia coli*. The recombinant myoglobin protein was purified by proprietary chromatographic techniques.

## *Source*
Recombinant protein, purified from *E. coli*.

## *Predicted Molecular Mass*
~17 kDa.

## *Formulation & Reconstitution*
- Fine white powder, lyophilized.
- Recombinant myoglobin was lyophilized from a 0.2 µm filtered solution with a protein concentration of 0.4 mg/mL.
- It is recommended to briefly spin the vial prior to opening, bring the contents to the bottom, and reconstitute the lyophilized product with sterile 20 mM Tris-HCl, pH 8.0.

## *Stability & Storage*
- Lyophilized product is stable at room temperature for 3 weeks, it is recommended to be stored desiccated below -20°C in a manual defrost freezer.
- Upon reconstituted, the protein should be stored at 4°C for one week. For long term storage, it is recommended to add a carrier protein (0.1% HSA or BSA) and store at -20 or -80°C. **Please avoid repeated freeze-thaw cycles.**

## *Purity*
>95%, determined by SDS-PAGE and stained with Commassie blue.

## *References*
1. Weber, M, et al. (2005). Diagnostic utility of new immunoassays for the cardiac markers cTnI, myoglobin and CK-MB mass. Clinical Biochemistry. 38 (11): 1027–30.
2. Kendrew, C, et al. (1958) A Three-Dimensional Model of the Myoglobin Molecule Obtained by X-Ray Analysis. Nature. 181 (4610): 662–6.
3. George A, et al. (2004) Myoglobin: an essential hemoprotein in striated muscle. Journal of Experimental Biology. 207 (Pt 20): 3441–6.
4. Collman, JP, et al. (1976). Nature of Oxygen and Carbon Monoxide Binding to Metalloporphyrins and Heme Proteins. PNAS. 73 (10): 3333–7.