

Myoglobin

Sperm Whale, Recombinant

Expressed in *E. coli*

Cat. No. CRP0851

Lot. No. (See product label)

PRODUCT INFORMATION

Description: Myoglobin contains an intracellular heme that facilitates the transport of molecular oxygen by combining with molecular oxygen to form oxymyoglobins. Measurement of myoglobin levels is useful in the diagnosis of skeletal and cardiac muscle damage. Sperm whale myoglobin is expressed in *E. coli*.

Summary: This gene encodes a member of the globin superfamily and is expressed in skeletal and cardiac muscles. The encoded protein is a haemoprotein contributing to intracellular oxygen storage and transcellular facilitated diffusion of oxygen. At least three alternatively spliced transcript variants encoding the same protein have been reported.

M. W. : 17,180 Da

Recombinant: Expressed in *E. coli*

Purity: >95% as determined by SDS-PAGE.

Storage buffer: Liquid. In PBS Buffer.

REFERENCES

1. Takano, T. Structure of myoglobin refined at 2.0 Å resolution. II. Structure of deoxymyoglobin from sperm whale. *J. Mol. Biol.* 1977; 110: 569–584.
2. George A. Ordway and Daniel J. Garry. Myoglobin: an essential hemoprotein in striated muscle. *Journal of Experimental Biology* 2004; 207: 3441–3446.
3. Barry, A., et al. High-level expression of sperm whale myoglobin in *Escherichia coli*. *Proc. Natl. Acad. Sci. USA* 1987; 84(24): 8961-8965.
4. Morgera, Hans H. Neumayer and Rinaldo Bellomo. Myoglobin clearance by super high-flux hemofiltration in a case of severe rhabdomyolysis: a case report. *Critical Care* 2005; 9: R90–R95.

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Model of helical domains in myoglobin.^[1]

GENE INFORMATION

Gene Name: [MB](#)

Synonyms: MGC13548; PVALB; Myoglobin; myoglobin

mRNA Refseq: [NM_005368.2](#)

Protein Refseq: [NP_005359.1](#)

MIM: [160000](#)

GeneID: [4151](#)

Uniprot ID: [P02144](#)

Function: heme binding, iron ion binding, metal ion binding, oxygen binding, oxygen transporter activity.

Process: enuclease erythrocyte differentiation, heart development, oxygen transport, response to hypoxia, transport.

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21 Brookhaven BLVD · Port Jefferson Station, NY 11776, USA
Technical Support: T: 631-871-5806 · F: 631-207-8356
E-mail: info@creative-biolabs.com
www.creative-biolabs.com