

Myoglobin Antibody

Mouse Monoclonal Antibody (Mab) Catalog # AM2032b

Specification

Myoglobin Antibody - Product Information

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Isotype Antigen Region

WB,E <u>P02144</u> <u>P02189, P02150, NP_005359.1, P68082</u> Human, Mouse Horse, Monkey, Pig Mouse Monoclonal IgG1 103-130

Myoglobin Antibody - Additional Information

Gene ID 4151

Other Names Myoglobin, MB

Target/Specificity

This Myoglobin antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 103-130 amino acids from human Myoglobin.

Dilution WB~~1:1000 E~~Use at an assay dependent concentration.

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

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

Myoglobin Antibody - Protein Information

Name MB (<u>HGNC:6915</u>)

Function Monomeric heme protein which primary function is to store oxygen and facilitate its



diffusion within muscle tissues. Reversibly binds oxygen through a pentacoordinated heme iron and enables its timely and efficient release as needed during periods of heightened demand (PubMed:<u>30918256</u>, PubMed:<u>34679218</u>). Depending on the oxidative conditions of tissues and cells, and in addition to its ability to bind oxygen, it also has a nitrite reductase activity whereby it regulates the production of bioactive nitric oxide (PubMed:<u>32891753</u>). Under stress conditions, like hypoxia and anoxia, it also protects cells against reactive oxygen species thanks to its pseudoperoxidase activity (PubMed:<u>34679218</u>).

Cellular Location Cytoplasm, sarcoplasm

Myoglobin Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>
- Myoglobin Antibody Images



Myoglobin Antibody (Cat. #AM2032b) western blot analysis in mouse heart and skeletal muscle tissue lysates (35µg/lane). This demonstrates the Myoglobin antibody detected the Myoglobin protein (arrow).

Myoglobin Antibody - Background

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.

Myoglobin Antibody - References

Esquerra, R.M., et al. Phys Chem Chem Phys 12(35):10270-10278(2010) Endeward, V., et al. Cardiovasc. Res. 87(1):22-29(2010) Balobanov, V.A., et al. Mol. Biol. (Mosk.) 44(4):708-717(2010) Kristiansen, G., et al. Br. J. Cancer 102(12):1736-1745(2010) Rayner, B.S., et al. Biochem. J. 423(2):169-177(2009)