Human Myoglobin Antibody

Monoclonal Mouse IgG_{2A} Clone # 974145

Catalog Number: MAB97202

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Myoglobin in direct ELISAs. In sandwich immunoassays, the antibody pair is specific for human Myoglobin.
Source	Monoclonal Mouse IgG_{2A} Clone # 974145
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Purified human cardiac myoglobin antigen from human heart Accession # P02144
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

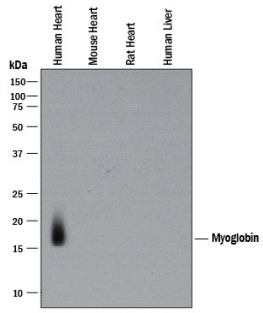
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.05 µg/mL	See Below
Immunohistochemistry	1-25 µg/mL	See Below
Simple Western	10 µg/mL	See Below
ELISA	This antibody functions as an ELISA detection antibody when paired with Mouse Anti-Human/Mouse/Rat Myoglobin Monoclonal Antibody (Catalog # MAB97201). In sandwich immunoassays, the antibody pair is specific for human Myoglobin. *This product is intended for assay development on various assay platforms requiring antibody pairs.*	

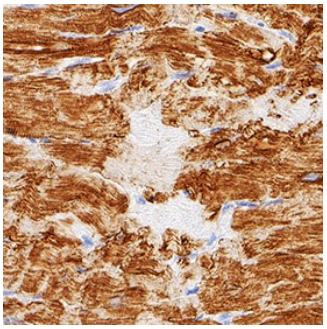
DATA

Western Blot



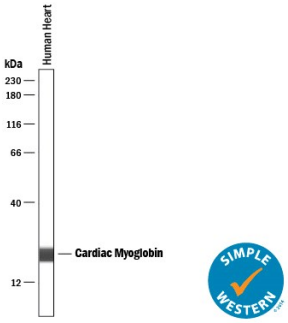
Detection of Human Myoglobin by Western Blot. Western blot shows lysates of human heart tissue, mouse heart tissue (negative control), rat heart tissue (negative control), and human liver tissue (negative control). PVDF membrane was probed with 0.05 µg/mL of Mouse Anti-Human Myoglobin Monoclonal Antibody (Catalog # MAB97202) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Myoglobin at approximately 18 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



Myoglobin in Human Heart. Myoglobin was detected in immersion fixed paraffin-embedded sections of human heart using Mouse Anti-Human Myoglobin Monoclonal Antibody (Catalog # MAB97202) at 1.7 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to sarcoplasm. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

Simple Western



Detection of Human Myoglobin by Simple Western™. Simple Western lane view shows lysates of human heart tissue, loaded at 0.5 mg/mL. A specific band was detected for Myoglobin at approximately 22 kDa (as indicated) using 10 µg/mL of Mouse Anti-Human Myoglobin Monoclonal Antibody (Catalog # MAB97202) . This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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Catalog Number: MAB97202

BACKGROUND

Myoglobin is a 17KDa cytoplasmic oxygen-binding protein encoded by the MB gene and expressed in myocytes of the heart and skeletal muscle. Its name derives from its structural and functional similarity to hemoglobin, the oxygen binding protein found in red blood cells. Functions of myoglobin include oxygen storage and transport, as well as scavenging of NO and reactive oxygen species. Myoglobin also serves as a sensitive marker for muscle injury resulting from cardiac infarction. Myoglobin was the first protein to have its three-dimensional structure determined by X-ray crystallography.

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