Human/Mouse/Rat Myoglobin Antibody

Recombinant Monoclonal Rabbit IgG Clone # 2269B
Catalog Number: MAB97203

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human Myoglobin in direct ELISAs. Detects human, mouse, and rat Myoglabin in Western blots.
Source	Recombinant Monoclonal Rabbit IgG Clone # 2269B
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Purifed 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.

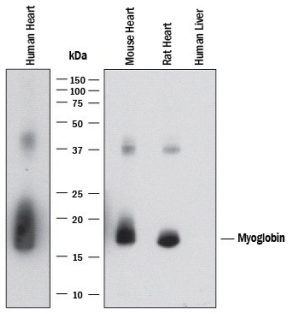
APPLICATIONS

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	0.5 µg/mL	See Below
Immunohistochemistry	3-25 µg/mL	See Below
Simple Western	10 µg/mL	See Below
ELISA	This antibody functions as an ELISA detection antibody when paired with Rabbit Anti-Human Myoglobin Monoclonal Antibody (Catalog # MAB97204). *This product is intended for assay development on various assay platforms requiring antibody pairs.*	

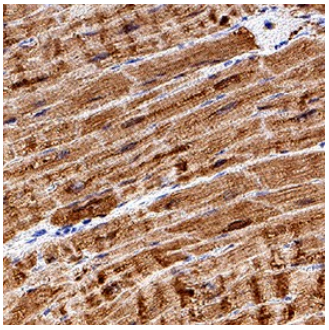
DATA

Western Blot



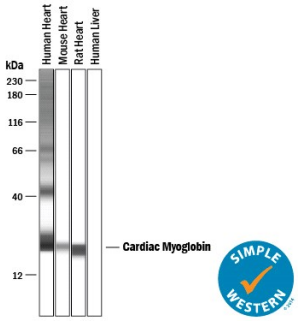
Detection of Human, Mouse, and Rat Myoglobin by Western Blot. Western blot shows lysates of human heart tissue, mouse heart tissue, rat heart tissue, and human liver tissue. PVDF membrane was probed with 0.5 µg/mL of Rabbit Anti-Human Myoglobin Monoclonal Antibody (Catalog # MAB97203) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). 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



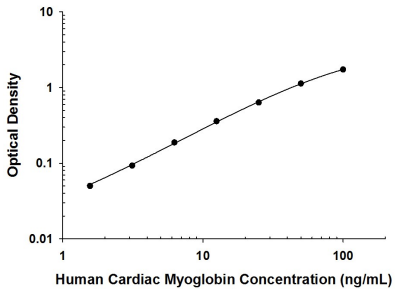
Myoglobin in Human Heart. Myoglobin was detected in immersion fixed paraffin-embedded sections of human heart using Rabbit Anti-Human Myoglobin Monoclonal Antibody (Catalog # MAB97203) at 3 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Rabbit IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC003). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in cardiomyocytes. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

Simple Western



Detection of Human, Mouse, and Rat Myoglobin by Simple Western™. Simple Western lane view shows lysates of human heart tissue, mouse heart tissue, rat heart tissue, and human liver tissue, loaded at 0.2 mg/mL. A specific band was detected for Myoglobin at approximately 21-24 kDa (as indicated) using 10 µg/mL of Rabbit Anti-Human Myoglobin Monoclonal Antibody (Catalog # MAB97203) . This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

ELISA



Human Myoglobin ELISA Standard Curve. Recombinant Human Myoglobin protein was serially diluted 2-fold and captured by Rabbit Anti-Human Myoglobin Monoclonal Antibody (Catalog # MAB97204) coated on a Clear Polystyrene Microplate (Catalog # DY990). Rabbit Anti-Human/Mouse/Rat Myoglobin Monoclonal Antibody (Catalog # MAB97203) was biotinylated and incubated with the protein captured on the plate. Detection of the standard curve was achieved by incubating Streptavidin-HRP (Catalog # DY998) followed by Substrate Solution (Catalog # DY999) and stopping the enzymatic reaction with Stop Solution (Catalog # DY994).

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Recombinant Monoclonal Rabbit IgG Clone # 2269B
Catalog Number: MAB97203

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.

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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