

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MYH6. The peptide immunogen sequence represents a region specific to MYH6 and not present in other MYH isoforms.
Source	Monoclonal Mouse IgG ₁ Clone # 940344
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human MYH6 peptide Accession # P13533
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 as a 0.2 µm filtered solution in PBS.

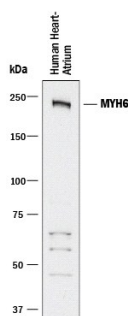
APPLICATIONS

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	10 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below
Immunohistochemistry	5-25 µg/mL	See Below

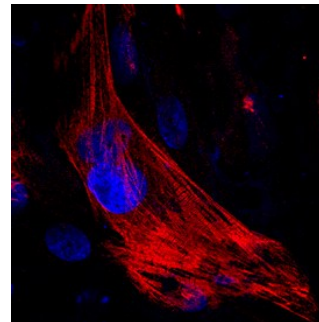
DATA

Western Blot



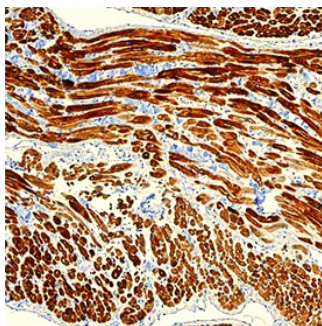
Detection of Human MYH6 by Western Blot. Western blot shows lysates of human heart (atrium) tissue. PVDF membrane was probed with 10 µg/mL of Mouse Anti-Human MYH6 Monoclonal Antibody (Catalog # MAB8979) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for MYH6 at approximately 230 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



MYH6 in BG01V Human Embryonic Stem Cells. MYH6 was detected in immersion fixed BG01V human embryonic stem cells differentiated into cardiomyocytes using Mouse Anti-Human MYH6 Monoclonal Antibody (Catalog # MAB8979) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Stem Cells on Coverslips](#).

Immunohistochemistry



MYH6 in Human Heart. MYH6 was detected in immersion fixed paraffin-embedded sections of human heart using Mouse Anti-Human MYH6 Monoclonal Antibody (Catalog # MAB8979) at 5 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm of cardiomyocytes. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

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. <ul style="list-style-type: none"> ● 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

The MYH6 gene encodes the alpha chain of cardiac myosin, a muscle motor protein with two regions that bind actin at aa 657-679 and 759-773. Defects in this gene cause atrial septal defect 3, hypertrophic cardiac myopathy and sick sinus syndrome. MYH6 participates in embryonic and adult heart development and muscle contraction. In adult heart, the beta chain isoform predominates in the ventricular tissue, while both isoforms are found in variable proportions in atrial tissue. Force development is much faster in atrial tissue and ATP consumption is much higher.