

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MYH7 in direct ELISAs and Western blots.
Source	Recombinant Monoclonal Rabbit IgG Clone # 2021A
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Human MYH7 synthetic peptide Accession # P12883
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.

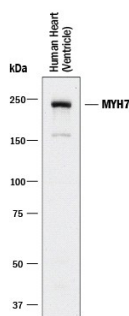
APPLICATIONS

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
Immunocytochemistry	5-25 µg/mL	See Below

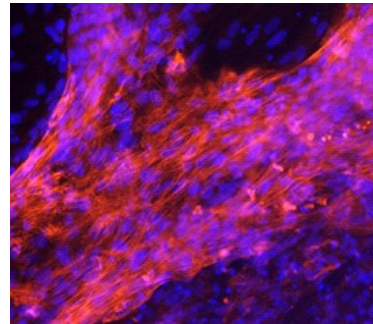
DATA

Western Blot



Detection of MYH7 by Western Blot. Western blot shows lysates of human heart (ventricle) tissue. PVDF membrane was probed with 0.5 µg/mL of Rabbit Anti-Human MYH7 Monoclonal Antibody (Catalog # MAB90961) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for MYH7 at approximately 230 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



MYH7 in Human Cardiomyocytes. MYH7 was detected in immersion fixed BG01V human embryonic stem cells differentiated into cardiomyocytes using Rabbit Anti-Human MYH7 Monoclonal Antibody (Catalog # MAB90961) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Stem Cells on Coverslips](#).

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

MYH7 encodes the beta myosin heavy chain (MHC-β) which is a component of cardiac muscle myosin mainly expressed in the ventricle of fetal heart and represents the minority myosin in the adult heart. This is the 'slow form' of cardiac myosin as opposed to the 'fast form' (MYH6, aka MHC-α) expressed more predominantly in the atria of the fetal heart and is the predominant myosin in the adult heart. The two isoforms of cardiac MHCα and β display 93% homology but have significantly different enzymatic properties, with α having 150-300% the contractile velocity and 60-70% actin attachment time as that of β. Several mutations in MYH7 have been associated with inherited cardiomyopathies paraspinal and proximal muscle atrophy. MYH7 is a 223 kDa protein composed of 1935 amino acids.

PRODUCT SPECIFIC NOTICES

Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to SDS for additional information and handling instructions.