Human/Mouse Myocardin Antibody

Monoclonal Mouse IgG_{2B} Clone # 355521

Catalog Number: MAB4028

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse Myocardin in Western blots.
Source	Monoclonal Mouse IgG_{2B} Clone # 355521
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human Myocardin Met97-Leu290 Accession # Q8IZQ8
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

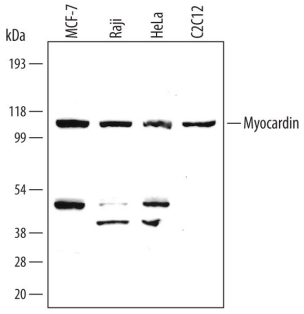
APPLICATIONS

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	1 µg/mL	See Below

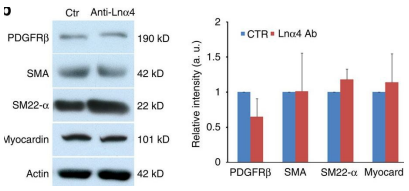
DATA

Western Blot



Detection of Human Myocardin by Western Blot. Western blot shows lysates of MCF-7 human breast cancer cell line, Raji human Burkitt's lymphoma cell line, HeLa human cervical epithelial carcinoma cell line, and C2C12 mouse myoblast cell line. PVDF membrane was probed with 1 µg/mL of Human Myocardin Monoclonal Antibody (Catalog # MAB4028) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # Catalog # HAF007). A specific band was detected for Myocardin at approximately 105 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Western Blot



Detection of Mouse Myocardin by Western Blot Laminin-111 but not laminin-α4 blocking antibody affects pericyte differentiation. (a) Immunoblots show that laminin-111 blockage (Ln Ab) significantly enhances the expression of PDGFRβ, SMA, and SM22-α, but not myocardin in pericytes. Full blots of these proteins are shown in Supplementary Figure 14b. Rabbit IgG treated cells were used as a Ctr. All bands were normalized to actin (n=5–6). (b) Immunoblots show that laminin-α4 blockage (Anti-Lnα4) does not change the expression of PDGFRβ, SMA, SM22-α, or myocardinin in pericytes. Full blots of these proteins are shown in Supplementary Figure 14c. Rabbit IgG treated cells were used as a Ctr. All bands were normalized to actin (n=3). Data are shown as mean ± sd. *p<0.05 versus the Ctrs by student's t-test. Image collected and cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/24583950), licensed under a CC-BY license. Not internally tested by R&D Systems.

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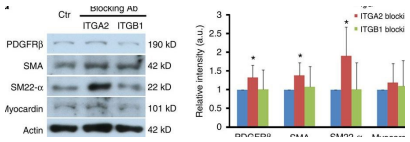
Monoclonal Mouse IgG_{2B} Clone # 355521

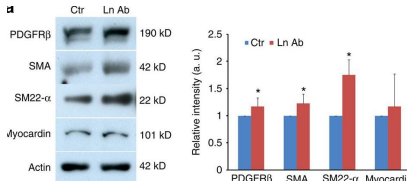
Catalog Number: MAB4028

Western Blot



Detection of Mouse Myocardin by Western Blot Astrocytic laminin mediates pericyte differentiation via integrin α2. (a) Immunoblots show that integrin α2 blockage (ITGA2) but not integrin β1 blockage significantly increases the expression of PDGFRβ, SMA, and SM22-α, but not myocardin in pericytes. Full blots of these proteins are shown in Supplementary Figure 14d. Rabbit IgG treated cells were used as a Ctr. All bands were normalized to actin (n=6). (b) Schematic diagram of shRNA designed to target ITGA2 mRNA. (c) Immunoblot analysis shows that all three ITGA2-specific shRNAs (#1–3) dramatically reduce ITGA2 at protein level and ITGA2-specific shRNA-3 (#1) is the most efficient one. Full blots of ITGA2 and actin are shown in Supplementary Figure 14e. Scramble shRNA was used as a Ctr. (d) Immunoblot analysis shows that transduction of pericytes with lenti-shRNA-1 (#1) significantly enhances the expression of PDGFRβ, SMA, and SM22-α, but does not affect myocardin level. Full blots of these proteins are shown in Supplementary Figure 14f. Scramble shRNA was used as a Ctr. All bands were normalized to actin (n=4–5). Data are shown as mean ± sd. *p<0.05 versus the Ctrs by student's t-test. Image collected and cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/24583950), licensed under a CC-BY license. Not internally tested by R&D Systems.

Western Blot



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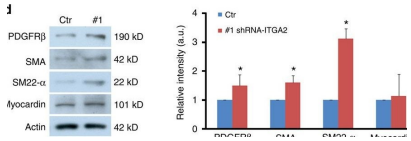
Western Blot



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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.
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

Myocardin (MYOCD) is a transcriptional co-activator necessary for differentiation of smooth muscle cells. MYOCD functions by binding the transcription factor Serum Response Factor (SRF) and stimulating smooth muscle cell-specific gene expression.

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