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Product Information

Monoclonal Anti-Myocardin, Clone MCR54
produced in mouse, purified immunoglobulin

Product Number **M8948**

Product Description

Monoclonal Anti-Myocardin (mouse IgG2b isotype) is derived from the hybridoma MCR54 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to a fragment of human myocardin (GeneID 93649). The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2.

Monoclonal Anti-Myocardin reacts with human myocardin. The antibody may be used in various immunochemical techniques including immunoblotting (expected MW for endogenous myocardin ~95 kDa; MW of recombinant protein ~150 kDa).

Development of cardiac muscle, skeletal muscle, and smooth muscle cells is accompanied by transcriptional activation of overlapping though distinct sets of muscle-specific genes. The myocardin gene is expressed in a precise developmentally regulated, lineage-restricted pattern in the embryo and during postnatal development. Myocardin is a smooth and cardiac muscle-specific transcriptional coactivator of serum response factor (SRF). It regulates the expression of a set of cardiac and smooth muscle-specific genes. When expressed ectopically in non-muscle cells, myocardin can induce smooth muscle differentiation by its association with SRF. Myocardin contains a conserved 35 amino acid SAP (SAF-A/B, Acinus, and PIAS) domain, which may regulate nuclear organization, chromosomal dynamics and apoptosis.[1-3] Interestingly, myocardin was implicated in the pathogenesis of atherosclerosis, Alzheimer's disease, and malignant transformation.[4]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~2.0 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at –20 °C. For continuous use, the product may be stored at 2–8 °C for up to one month. For extended storage, freeze at –20 °C in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working antibody concentration of 2.5-5 μg/mL is recommended using HEK-293T cells overexpressing myocardin.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

Working with sensitive film is recommended.

References

1. Wang, Z. et al., *Proc. Natl. Acad. Sci. USA,* **100**, 7129-7134 (2003).
2. Du, K.L. et al., *Mol. Cell. Biol.,* **23**, 2425-2437 (2003).
3. Parmacek, M.S., *Circ. Res.,* **100**, 633-644 (2007).
4. Shats, I. et al., *Cell Cycle,* **6**, 1141-1146 (2007).

VS,GG,KAA,PHC,MAM 05/19-1