PRODUCT INFORMATION

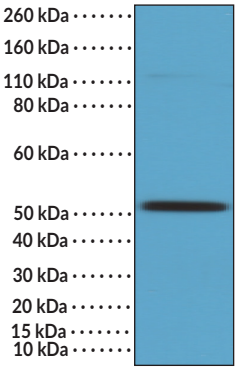
MyoD1 Rabbit Monoclonal Antibody (Clone RM369)

Item No. 32294

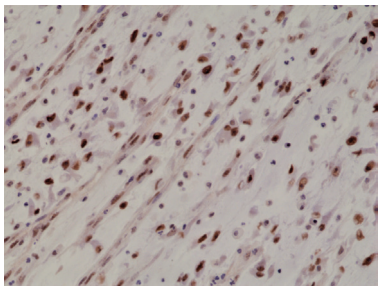
Overview and Properties

Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	Myf3, Myoblast Determination Protein 1, Myogenic Determination Factor 1, Myogenic Differentiation 1, Myogenic Factor 3
Immunogen:	Peptide corresponding to residues near the N-terminus of human MyoD1
Cross Reactivity:	(+) MyoD1
Species Reactivity:	(+) Human, mouse, rat
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM369
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:500-1:1,000 for IHC and 1:1,000-1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



WB of mouse skeletal muscle tissue lysate using MyoD1 Rabbit Monoclonal Antibody (Clone RM369) at a dilution of 1:2,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human rhabdomyosarcoma tissue using MyoD1 Rabbit Monoclonal Antibody (Clone RM369) at a dilution of 1:1,000.

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Description

Myogenic determination factor 1 (MyoD1) is a transcription factor and member of the myogenic regulatory factor (MRF) protein family with a role in muscle differentiation.[1,2] It is composed of an unstructured N-terminus, a central basic helix-loop-helix domain with a cysteine/histidine domain located at its N-terminus, and a serine/threonine-rich domain proximal to an unstructured C-terminal tail.[1,3] MyoD1 is expressed exclusively in skeletal muscle and localized to the nucleus where it binds E-box sequences found in promoters and enhancer regions of muscle-specific genes to regulate transcription during development or in response to skeletal muscle injury. Cayman's MyoD1 Rabbit Monoclonal Antibody (Clone RM369) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Asfour, H.A., Allouh, M.Z., and Said, R.S. Myogenic regulatory factors: The orchestrators of myogenesis after 30 years of discovery. *Exp. Biol. Med. (Maywood)* **243(2)**, 118-128 (2018).
2. Folpe, A.L. MyoD1 and myogenin expression in human neoplasia: A review and update. *Adv. Anat. Pathol.* **9(3)**, 198-203 (2002).
3. Talbot, J. and Maves, L. Skeletal muscle fiber type: Using insights from muscle developmental biology to dissect targets for susceptibility and resistance to muscle disease. *Wiley Interdiscip. Rev. Dev. Biol.* **5(4)**, 518-534 (2016).

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