

# MyoD1/Myf3 Rabbit pAb

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Catalog # AP52107

## Product Information

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<b>Application</b>	WB
<b>Primary Accession</b>	<a href="#">P10085</a>
<b>Reactivity</b>	Mouse, Rat
<b>Predicted</b>	Chicken
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	34233
<b>Physical State</b>	Liquid
<b>Immunogen</b>	KLH conjugated synthetic peptide derived from mouse MyoD1
<b>Epitope Specificity</b>	51-150/318
<b>Isotype</b>	IgG
<b>Purity</b>	affinity purified by Protein A
<b>Buffer</b>	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
<b>SUBCELLULAR LOCATION</b>	Nucleus.
<b>SIMILARITY</b>	Contains 1 bHLH (basic helix-loop-helix) domain.
<b>SUBUNIT</b>	Efficient DNA binding requires dimerization with another bHLH protein. Seems to form active heterodimers with ITF-2. Interacts with SUV39H1 and CDK9. Interacts with DDX5 (By similarity).
<b>Post-translational modifications</b>	Phosphorylated by CDK9. This phosphorylation promotes its function in muscle differentiation. Acetylated by a complex containing EP300 and PCAF. The acetylation is essential to activate target genes. Conversely, its deacetylation by SIRT1 inhibits its function (By similarity). Ubiquitinated on the N-terminus; which is required for proteasomal degradation.
<b>Important Note</b>	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
<b>Background Descriptions</b>	This gene encodes a nuclear protein that belongs to the basic helix-loop-helix family of transcription factors and the myogenic factors subfamily. It regulates muscle cell differentiation by inducing cell cycle arrest, a prerequisite for myogenic initiation. The protein is also involved in muscle regeneration. It activates its own transcription which may stabilize commitment to myogenesis. [provided by RefSeq, Jul 2008]

## Additional Information

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<b>Gene ID</b>	17927
<b>Other Names</b>	Myoblast determination protein 1, Myod1, Myod
<b>Dilution</b>	WB=1:1000-5000
<b>Storage</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

## Protein Information

<b>Name</b>	Myod1
<b>Synonyms</b>	Myod
<b>Function</b>	Acts as a transcriptional activator that promotes transcription of muscle-specific target genes and plays a role in muscle differentiation (PubMed: <a href="#">16901893</a> ). Together with MYF5 and MYOG, co-occupies muscle-specific gene promoter core region during myogenesis. Induces fibroblasts to differentiate into myoblasts. Interacts with and is inhibited by the twist protein. This interaction probably involves the basic domains of both proteins (PubMed: <a href="#">21798092</a> , PubMed: <a href="#">3175662</a> ).
<b>Cellular Location</b>	Nucleus.

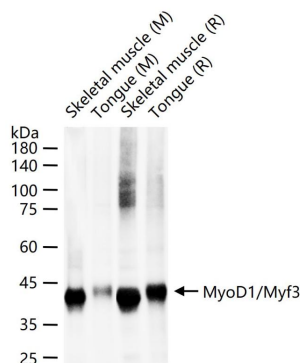
## Background

This gene encodes a nuclear protein that belongs to the basic helix-loop-helix family of transcription factors and the myogenic factors subfamily. It regulates muscle cell differentiation by inducing cell cycle arrest, a prerequisite for myogenic initiation. The protein is also involved in muscle regeneration. It activates its own transcription which may stabilize commitment to myogenesis. [provided by RefSeq, Jul 2008]

## References

Davis R.L.,et al.Cell 51:987-1000(1987).  
Zingg J.-M.,et al.Nucleic Acids Res. 19:6433-6439(1991).  
Pinney D.F.,et al.Cell 53:781-793(1988).  
Carninci P.,et al.Science 309:1559-1563(2005).  
Tapscott S.J.,et al.Science 242:405-411(1988).

## Images



25 ug total protein per lane of various lysates (see on figure) probed with MyoD1/Myf3 polyclonal antibody, unconjugated (AP52107) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.