10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MYOGENIN Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12509A

Product Information

Application	WB, E
Primary Accession	P15173
Other Accession	NP_002470.2
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB31228
Calculated MW	25037
Antigen Region	1-30

Additional Information

Gene ID	4656
Other Names	Myogenin, Class C basic helix-loop-helix protein 3, bHLHc3, Myogenic factor 4, Myf-4, MYOG, BHLHC3, MYF4
Target/Specificity	This MYOGENIN antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human MYOGENIN.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MYOGENIN Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MYOG
Synonyms	BHLHC3, MYF4

Function	Acts as a transcriptional activator that promotes transcription of muscle-specific target genes and plays a role in muscle differentiation, cell cycle exit and muscle atrophy. Essential for the development of functional embryonic skeletal fiber muscle differentiation. However is dispensable for postnatal skeletal muscle growth; phosphorylation by CAMK2G inhibits its transcriptional activity in respons to muscle activity. Required for the recruitment of the FACT complex to muscle-specific promoter regions, thus promoting gene expression initiation. During terminal myoblast differentiation, plays a role as a strong activator of transcription at loci with an open chromatin structure previously initiated by MYOD1. Together with MYF5 and MYOD1, co-occupies muscle-specific gene promoter core regions during myogenesis. Also cooperates with myocyte-specific enhancer factor MEF2D and BRG1-dependent recruitment of SWI/SNF chromatin- remodeling enzymes to alter chromatin structure at myogenic late gene promoters. Facilitates cell cycle exit during terminal muscle differentiation through the up-regulation of miR-20a expression, which in turn represses genes involved in cell cycle progression. Binds to the E-box containing (E1) promoter region of the miR-20a gene. Also plays a role in preventing reversal of muscle cell differentiation. Contributes to the atrophy-related gene expression in adult denervated muscles. Induces fibroblasts to differentiate into myoblasts (By similarity).
Cellular Location	Nucleus. Note=Recruited to late myogenic gene promoter regulatory sequences with SMARCA4/BRG1/BAF190A and SWI/SNF chromatin-remodeling enzymes to promote chromatin-remodeling and transcription initiation in developing embryos.

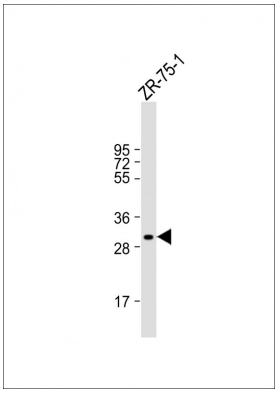
Background

Myogenin is a muscle-specific transcription factor that can induce myogenesis in a variety of cell types in tissue culture. It is a member of a large family of proteins related by sequence homology, the helix-loop-helix (HLH) proteins. It is essential for the development of functional skeletal muscle. [provided by RefSeq].

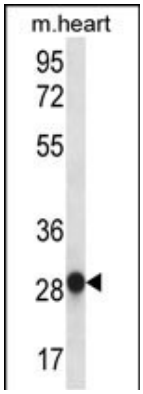
References

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Images



Anti-MYOGENIN Antibody (N-term) at 1:1000 dilution + ZR-75-1 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 25 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



MYOGENIN Antibody (N-term) (Cat. #AP12509a) western blot analysis in mouse heart tissue lysates (35ug/lane).This demonstrates the MYOGENIN antibody detected the MYOGENIN protein (arrow).

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