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MyoD1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12646c

Product Information

Application	IF, WB, E
Primary Accession	P15172
Other Accession	NP_002469.2
Reactivity	Human
Predicted	Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	34501
Antigen Region	211-240

Additional Information

Gene ID	4654
Other Names	Myoblast determination protein 1, Class C basic helix-loop-helix protein 1, bHLHc1, Myogenic factor 3, Myf-3, MYOD1, BHLHC1, MYF3, MYOD
Target/Specificity	This MyoD1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 211-240 amino acids from the Central region of human MyoD1.
Dilution	IF~~1:25 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	MyoD1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MYOD1
Synonyms	BHLHC1, MYF3, MYOD
Function	Acts as a transcriptional activator that promotes transcription of

muscle-specific target genes and plays a role in muscle differentiation. 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 (By similarity).

Cellular Location Nucleus.

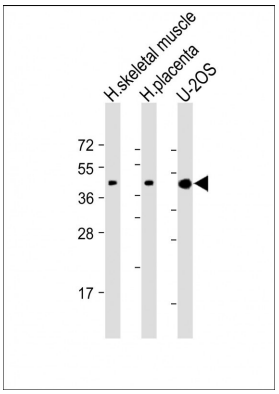
Background

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.

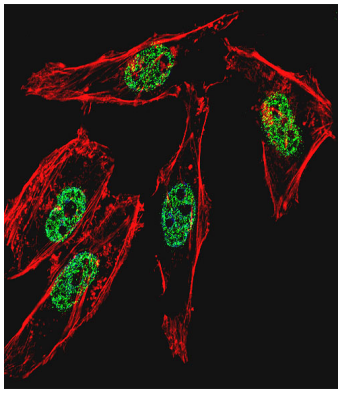
References

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Hiraoka, S., et al. Hum. Pathol. 41(1):38-47(2010)
Yerges, L.M., et al. J. Bone Miner. Res. 24(12):2039-2049(2009)
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Images



All lanes : Anti-MyoD1 Antibody (Center) at 1:500-1000 dilution Lane 1: Human skeletal muscle lysate Lane 2: Human placenta lysate Lane 3: U-2OS 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 : 35 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Fluorescent confocal image of Hela cell stained with MyoD1 Antibody (Center)(Cat#AP12646c). Hela cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with MyoD1 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C). Nuclei were counterstained with DAPI (blue) (10 µg/ml, 10 min). MyoD1 immunoreactivity is localized to nucleus significantly.

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