

**MyoD1 Antibody (Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP12646c****Specification**

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**MyoD1 Antibody (Center) - Product Information**

Application	IF, WB,E
Primary Accession	<a href="#">P15172</a>
Other Accession	<a href="#">NP_002469.2</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	34501
Antigen Region	211-240

**MyoD1 Antibody (Center) - 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~~1:4000

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.

**MyoD1 Antibody (Center) - 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**

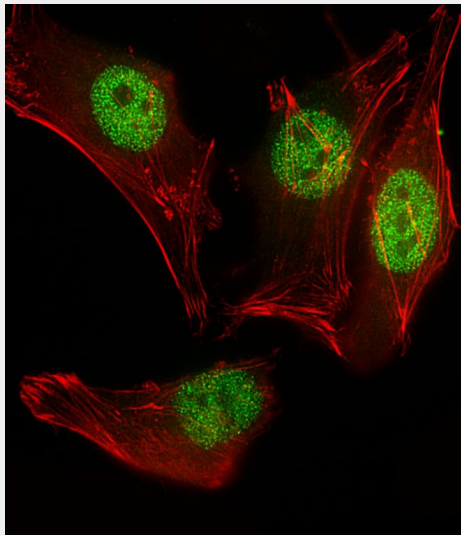
Nucleus.

**MyoD1 Antibody (Center) - Protocols**

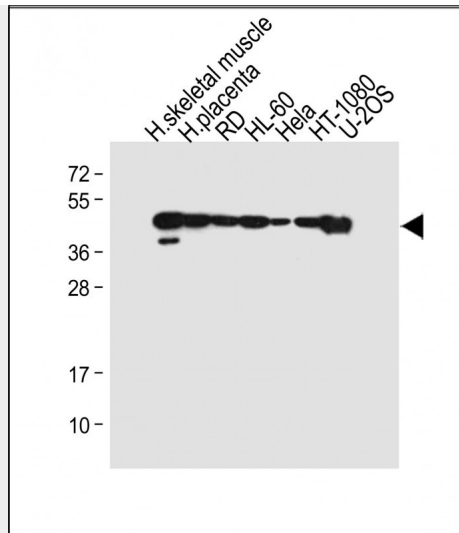
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**MyoD1 Antibody (Center) - Images**



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa cells labeling MYOD1 with AP12646C at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-Rabbit IgG secondary antibody at 1/200 dilution (green). Immunofluorescence image showing Nucleus staining on HeLa cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (red). The nuclear counter stain is DAPI (blue).



All lanes : Anti-MyoD1 Antibody (Center) at 1:4000 dilution Lane 1: Human skeletal muscle tissue lysate Lane 2: Human placenta tissue lysate Lane 3: RD whole cell lysate Lane 4: HL-60 whole cell lysate Lane 5: Hela whole cell lysate Lane 6: HT-1080 whole cell lysate Lane 7: U-2OS whole cell lysate Lysates/proteins at 20  $\mu$ g 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.

### **MyoD1 Antibody (Center) - 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.

### **MyoD1 Antibody (Center) - References**

- Xynos, A., et al. Stem Cells 28(5):965-973(2010)
- Stuelsatz, P., et al. J. Biol. Chem. 285(17):12670-12683(2010)
- 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)
- Yang, Z., et al. Genes Dev. 23(6):694-707(2009)