

# Myogenin Rabbit mAb

Catalog # AP76982

## Product Information

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|                   |                        |
|-------------------|------------------------|
| Application       | WB, IHC-P, FC          |
| Primary Accession | <a href="#">P15173</a> |
| Reactivity        | Human, Mouse, Rat      |
| Host              | Rabbit                 |
| Clonality         | Monoclonal Antibody    |
| Calculated MW     | 25037                  |

## Additional Information

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|             |   |
|-------------|---|
| Gene ID     | 4656                                    |
| Other Names | MYOG                                    |
| Dilution    | WB~~1/500-1/1000 IHC-P~~N/A FC~~1:10~50 |
| Format      | Liquid                                  |

## Protein Information

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|          |              |
|----------|--------------|
| Name     | MYOG         |
| Synonyms | BHLHC3, MYF4 |

|          |   |
|----------|---|
| Function | <p>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 response 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</p> |
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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.

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