

MYOG / Myogenin Antibody (aa30-224, clone 5FD)
Mouse Monoclonal Antibody
Catalog # ALS12037**Specification**

MYOG / Myogenin Antibody (aa30-224, clone 5FD) - Product Information

Application	IHC
Primary Accession	P15173
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Calculated MW	25kDa KDa

MYOG / Myogenin Antibody (aa30-224, clone 5FD) - 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

A recombinant GST fusion protein corresponding to amino acids 30-224 of rat myogenin was used as immunogen.

Reconstitution & Storage

Long term: -70°C; Short term: +4°C

Precautions

MYOG / Myogenin Antibody (aa30-224, clone 5FD) is for research use only and not for use in diagnostic or therapeutic procedures.

MYOG / Myogenin Antibody (aa30-224, clone 5FD) - 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 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. Cooperates also 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. Plays also 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

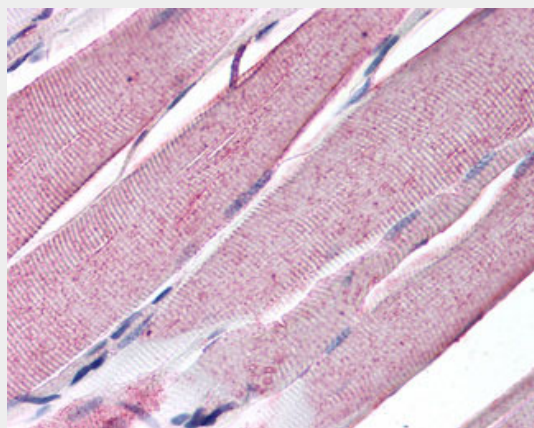
Nucleus. Note=Recruited to late myogenic gene promoter regulatory sequences with SMARCA4/BRG1/BAF190A and SWI/SNF chromatin-remodeling enzymes to promote chromatin-remodeling and transcription initiation in developing embryos.

MYOG / Myogenin Antibody (aa30-224, clone 5FD) - 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](#)

MYOG / Myogenin Antibody (aa30-224, clone 5FD) - Images



Anti-Myogenin antibody IHC of human skeletal muscle.

MYOG / Myogenin Antibody (aa30-224, clone 5FD) - Background

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Braun T.,et al.EMBO J. 8:3617-3625(1989).
Braun T.,et al.EMBO J. 9:592-592(1990).
Salminen A.,et al.J. Cell Biol. 115:905-917(1991).
Kalline N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.