ARG56120
anti-Myogenin antibody [F5D]

Package: 50 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [F5D] recognizes Myogenin
Tested Reactivity	Hu, Ms, Rat
Tested Application	IHC-P
Host	Mouse
Clonality	Monoclonal
Clone	F5D
Isotype	IgG1, kappa
Target Name	Myogenin
Species	Rat
Immunogen	Synthetic peptide around aa. 138-158 of Rat Myogenin protein.
Conjugation	Un-conjugated
Alternate Names	MYF4; Myf-4; Myogenin; bHLHc3; myf-4; Class C basic helix-loop-helix protein 3; Myogenic factor 4

Application Instructions

Application table

Application	Dilution
IHC-P	1 - 2 µg/ml

Application Note: IHC-P: Antigen Retrieval: Boil tissue section in 10 mM Citrate buffer (pH 6.0) for 10-20 min, followed by cooling at RT for 20 min.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

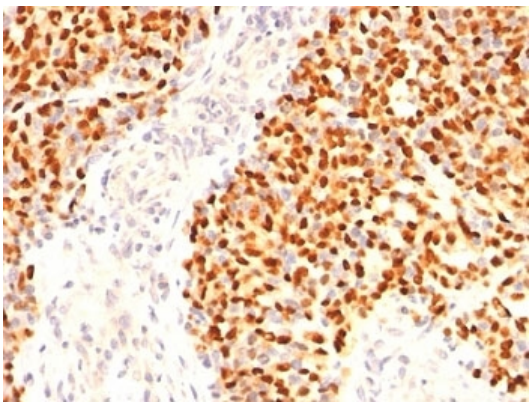
Properties

Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS (pH 7.4), 0.05% Sodium azide and 0.1 mg/ml BSA
Preservative	0.05% Sodium azide
Stabilizer	0.1 mg/ml BSA
Concentration	0.2 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	Myog
Gene Full Name	myogenin (myogenic factor 4)
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, Jul 2008]
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. 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). [UniProt]
Calculated Mw	25 kDa
PTM	Phosphorylated by CAMK2G on threonine and serine amino acids in a muscle activity-dependent manner. Phosphorylation of Thr-87 impairs both DNA-binding and trans-activation functions in contracting muscles (By similarity).
Cellular Localization	Nuclear

Images



ARG56120 anti-Myogenin antibody [F5D] IHC-P image

Immunohistochemistry: Formalin-fixed, paraffin-embedded Human Rhabdomyosarcoma stained with ARG56120 anti-Myogenin antibody [F5D].