

ARG66775 anti-Myogenin antibody [SQab20208]

Package: 100 µl
Store at: -20°C

Summary

Product Description	Recombinant Rabbit Monoclonal antibody [SQab20208] recognizes Myogenin
Tested Reactivity	Hu
Tested Application	IHC-P
Host	Rabbit
Clonality	Monoclonal
Clone	SQab20208
Isotype	IgG
Target Name	Myogenin
Species	Human
Immunogen	Synthetic peptide within aa. 100-200 of Human Myogenin.
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	1:100 - 1:200
Application Note	IHC-P: Antigen Retrieval: Heat mediation was performed in Tris/EDTA buffer (pH 9.0). * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Embryonal rhabdomyosarcoma (ERMS)	

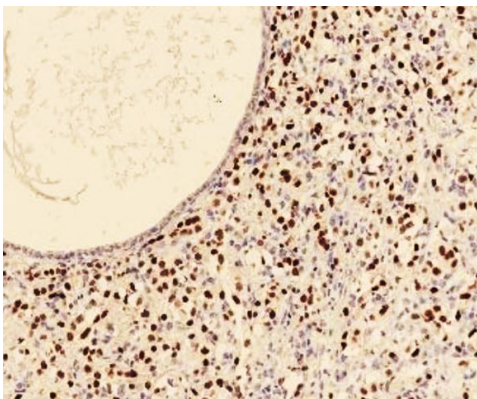
Properties

Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS, 0.01% Sodium azide, 40% Glycerol and 0.05% BSA.
Preservative	0.01% Sodium azide
Stabilizer	40% Glycerol and 0.05% BSA
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. 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 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). [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). [UniProt]
Cellular Localization	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. [UniProt]

Images



ARG66775 anti-Myogenin antibody [SQab20208] IHC-P image

Immunohistochemistry: Formalin/PFA-fixed and paraffin-embedded Human embryonal rhabdomyosarcoma (ERMS) tissue. Antigen Retrieval: Heat mediation was performed in Tris/EDTA buffer (pH 9.0). The tissue section was stained with ARG66775 anti-Myogenin antibody [SQab20208] at 18°C - 25°C for 30 minutes.