

Rabbit MYOG Polyclonal Antibody | anti-MYOG antibody

MYOG Antibody (Center)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA288666	Rabbit	Human (Predicted Reactivity: Bovine, Mouse, Pig, Rat)	ELISA, Western Blot

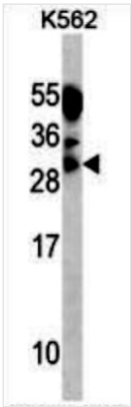
PRODUCT SYNONYMS

MYOG; Polyclonal Antibody; MYOG Antibody (Center); Myogenin; Class C basic helix-loop-helix protein 3; bHLHc3; Myogenic factor 4; Myf-4; BHLHC3; MYF4; anti-MYOG antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human (Predicted Reactivity: Bovine, Mouse, Pig, Rat)
Clonality	Polyclonal
Isotype	Rabbit Ig
Specificity	This MYOG antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 123-150 amino acids from the Central region of human MYOG.
Purity/Purification	This antibody is purified through a protein A column, followed by peptide affinity purification.
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.
Sequence Positions	123-150
Sequence Length	224
Applicable Applications for anti-MYOG antibody	ELISA, WB (Western Blot)
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 (EI) 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.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.

IMAGES



WB (Western Blot)
MYOG Antibody (Center) western blot analysis in K562 cell line lysates (35ug/lane). This demonstrates the MYOG antibody detected the MYOG protein (arrow).

ADDITIONAL INFORMATION

Related Product Information for anti-MYOG antibody	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].
Product Categories/Family for anti-MYOG antibody	Signal Transduction
References	Gao, X., et al. J. Cell. Biochem. 110(1):162-170(2010) Yerges, L.M., et al. J. Bone Miner. Res. 24(12):2039-2049(2009) Ramamoorthy, S., et al. Am. J. Physiol. Endocrinol. Metab. 297 (2), E392-E401 (2009) : Nanni, P., et al. Mol. Cancer Ther. 8(4):754-761(2009) Gong, C., et al. Genes Dev. 23(1):54-66(2009)

NCBI AND UNIPROT INFORMATION

NCBI GI #	18765727
NCBI GeneID	4656
NCBI Accession #	NP_002470.2
NCBI GenBank Nucleotide #	NM_002479.5
UniProt Accession #	P15173 ; Q53XW6
Molecular Weight	25037
NCBI Official Full Name	myogenin
NCBI Official Synonym Full Names	myogenin (myogenic factor 4)
NCBI Official Symbol	MYOG
NCBI Official Synonym Symbols	MYF4; myf-4; bHLHc3
NCBI Protein Information	myogenin
UniProt Protein Name	Myogenin
UniProt Gene Name	MYOG
UniProt Synonym Gene Names	BHLHC3; MYF4; bHLHc3; Myf-4
UniProt Entry Name	MYOG_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/myog-antibody-western-blot-elisa/288666>