

Product datasheet for **TA336375**

Myogenin (MYOG) Mouse Monoclonal Antibody [Clone ID: 5FD]

Product data:

Product Type:	Primary Antibodies
Clone Name:	5FD
Applications:	IHC, WB
Recommend Dilution:	WB: 2 ug/ml, IF: 5 ug/ml, IHC: 1:10-1:500, IHC-F: 5-10 ug/ml, IHC-P: 10-20 ug/ml
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	A recombinant protein corresponding to amino acids 30-224 of rat myogenin was used as immunogen (NP_002470).
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	0.5 mg/ml
Purification:	Protein G purified
Gene Name:	myogenin (myogenic factor 4)
Database Link:	NP_002470 Entrez Gene 17928 MouseEntrez Gene 29148 RatEntrez Gene 4656 Human



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Background:

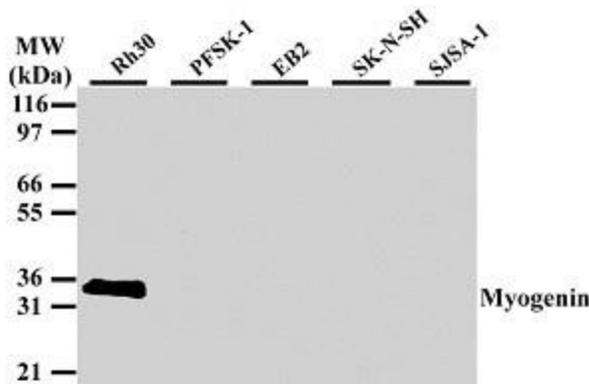
Myogenin is a member of the MyoD family of myogenic basic helix-loop-helix (bHLH) transcription factors that also includes MyoD, Myf-5, and MRF4 (also known as herculinor Myf-6). MyoD family members are expressed exclusively in skeletal muscle and play a key role in activating myogenesis by binding to enhancer sequences of muscle-specific genes. The regulatory domain of MyoD is approximately 70 amino acids in length and includes both a basic DNA binding motif and a bHLH dimerization motif. MyoD family members share about 80% amino acid homology in their bHLH motifs. Transfection of myogenin and other family members into a variety of non-muscle cells has been shown to either convert these cells to myogenic cells, or to transcriptionally activate a set of otherwise unexpressed muscle-specific genes. In addition to activating muscle specific genes, members of the MyoD family members activate their own transcription and transactivate the transcription of other MyoD family members. For example, transfection of myogenin into 10T1/2 cells or Swiss 3T3 cells results in the activation of the endogenous myogenin gene as well as transactivation of MyoD. Likewise, the transfection of MyoD into these cells results in the activation of MyoD as well as the transactivation of myogenin. Each member of the MyoD family has distinct roles in muscle development; myogenin plays a key role in muscle maturation. Myogenin migrates at a molecular weight of approx. 34 kDa by SDS-PAGE.

Synonyms:

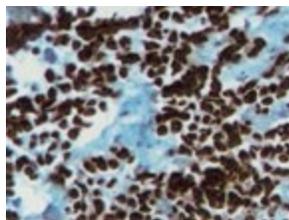
bHLHc3; myf-4; MYF4

Protein Families:

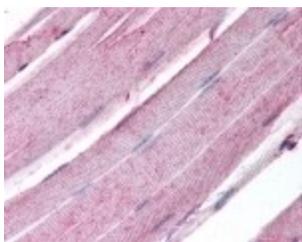
Druggable Genome, Transcription Factors

Product images:

Western Blot: Myogenin Antibody (5FD) TA336375 - Analysis of Myogenin expression in various small-round cell tumor lines. The antibody strongly reacted with a band at ~34 kDa in alveolar rhabdomyosarcoma line (Rh30). Negative cell lines were PFSK-1, EB2



Immunohistochemistry: Myogenin Antibody (5FD) TA336375 - Immunohistochemical analysis of Myogenin in a frozen tissue section of human alveolar rhabdomyosarcoma using TA336375 at 5 ug/ml.



Immunohistochemistry: Myogenin Antibody (5FD) TA336375 - Immunohistochemical staining of Myogenin in formalin-fixed, paraffin-embedded human myocytes using NB100-56703 at 2.5 ug/ml. Hematoxylin-eosin counterstain.