

AM05309PU-N**Monoclonal Antibody to Myogenin (MYOG)**

Alternate names:	BHLHC3, Class C basic helix-loop-helix protein 3, MYF4, MYOG, Myogenic factor 4
Quantity:	0.1 mg
Concentration:	Lot specific
Background:	Myogenin is a member of a family of myogenic regulatory genes, which includes MyoD, myf5 and MRF4. These genes encode a set of transcription factors, which are essential for muscle development. Expression of myogenin is restricted to cells of skeletal muscle origin. It is therefore a useful marker for tumors of the muscle lineage, being strongly expressed in alveolar rhabdomyosarcomas.
Uniprot ID:	P20428
NCBI:	NP_058811
GeneID:	29148
Host / Isotype:	Mouse / IgG1
Recommended Isotype Controls:	SM10P (for use in human samples), SM20P (for use in rat samples), AM03095PU-N
Clone:	F12B
Immunogen:	Hybridoma produced by the fusion of splenocytes from BALB/c mice immunized with recombinant protein containing rat myogenin amino acids 30-224 and mouse myeloma NS1 cells. Genename: MYOG
Format:	State: Liquid purified IgG fraction. Buffer System: PBS containing 0.08% Sodium Azide as preservative.
Applications:	ELISA. Gel Supershift. Immunohistochemistry on Formalin-fixed, Paraffin-embedded tissue sections (1-2 µg/ml). Immunofluorescence. Immunoprecipitation (2 µg/ml). Western Blot (1 µg/ml). Positive Control: Rhabdomyosarcoma and Wlim's tumors. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	Recognizes a protein of 34kDa, identified as myogenin. Its epitope localizes between aa 158-178 of myogenin. This antibody can immunoprecipitate protein-DNA complex and is the antibody of choice for staining of formalin-fixed, paraffin-embedded tissues. Species: Human, Mouse and Rat. Other species not tested.

- Storage:** Store the antibody at -20°C.
Avoid repeated freezing and thawing.
Shelf life: One year from despatch.
- General Readings:**
1. Wright WE, Dac-Korytko I, Farmer K. Monoclonal antimyogenin antibodies define epitopes outside the bHLH domain where binding interferes with protein-protein and protein-DNA interactions. *Dev Genet.* 1996;19(2):131-8. PubMed PMID: 8900045.
 2. Wright WE, Sassoon DA, Lin VK. Myogenin, a factor regulating myogenesis, has a domain homologous to MyoD. *Cell.* 1989 Feb 24;56(4):607-17. PubMed PMID: 2537150.
 3. Auradé F, Pinset C, Chafey P, Gros F, Montarras D. Myf5, MyoD, myogenin and MRF4 myogenic derivatives of the embryonic mesenchymal cell line C3H10T1/2 exhibit the same adult muscle phenotype. *Differentiation.* 1994 Feb;55(3):185-92. PubMed PMID: 8187980.
- Pictures:** **Figure 1.** Immunohistochemical staining using myogenin antibody (AM05309PU-N) on formalin fixed, paraffin embedded human rhabdomyosarcoma.

