

Rabbit MyoD1 Polyclonal Antibody | anti-MyoD1 antibody

Phospho-MyoD1 (Ser200) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329322	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry

PRODUCT SYNONYMS

MyoD1; Polyclonal Antibody; Phospho-MyoD1 (Ser200) Antibody; bHLHc1; Class C basic helix-loop-helix protein 1; MYF 3; Myf-3; MYF3; Myoblast determination protein 1; Myod 1; MYOD; MYOD1; MYOD1_HUMAN; Myogenic differentiation 1; Myogenic factor 3; Myogenic factor MYF 3; Myogenin D1; PUM; anti-MyoD1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-MyoD1 (Ser200) Antibody detects endogenous levels of MyoD1 only when phosphorylated at Ser200.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-MyoD1 antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry)
Immunogen	A synthesized peptide derived from human MyoD1 around the phosphorylation site of Ser200.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylated by CDK9. This phosphorylation promotes its function in muscle differentiation. Acetylated by a complex containing EP300 and PCAF. The acetylation is essential to activate target genes. Conversely, its deacetylation by SIRT1 inhibits its function (By similarity). Ubiquitinated on the N-terminus; which is required for proteasomal degradation. Methylation at Lys-104 by EHMT2/G9a inhibits myogenic activity.
Subunit Structure	Efficient DNA binding requires dimerization with another bHLH protein. Seems to form active heterodimers with ITF-2. Interacts with SUV39H1. Interacts with DDX5. Interacts with CHD2. Interacts with TSC22D3 (By similarity). Interacts with SETD3 (By similarity). Interacts with P-TEFB complex; promotes the transcriptional activity of MYOD1 through its CDK9-mediated phosphorylation (By similarity). Interacts with CSRP3. Interacts with NUPR1 (By similarity).
Subcellular Location	Nucleus.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



Application Data

At 25 degree C. Samples were then incubated with primary Ab(At 37 degree C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody. The nuclear counter stain is DAPI (blue).



IHC (Immunohistochemistry)

At 1/100 staining Mouse brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

Staining Rat heart tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



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ADDITIONAL INFORMATION

Related Product Information for anti-MyoD1 antibody

Acts as a transcriptional activator that promotes transcription of muscle-specific target genes and plays a role in muscle differentiation. Together with MYF5 and MYOG, co-occupies muscle-specific gene promoter core region during myogenesis. Induces fibroblasts to differentiate into myoblasts. Interacts with and is inhibited by the twist protein. This interaction probably involves the basic domains of both proteins (By similarity).

NCBI AND UNIPROT INFORMATION

NCBI GI #	23111009
NCBI GeneID	4654
NCBI Accession #	NP_002469.2
NCBI GenBank Nucleotide #	NM_002478.4
UniProt Accession #	P15172; O75321
Molecular Weight	34,501 Da
NCBI Official Full Name	myoblast determination protein 1
NCBI Official Synonym Full Names	myogenic differentiation 1
NCBI Official Symbol	MYOD1
NCBI Official Synonym Symbols	PUM; MYF3; MYOD; bHLHc1
NCBI Protein Information	myoblast determination protein 1; myf-3; myogenic factor 3; class C basic helix-loop-helix protein 1
UniProt Protein Name	Myoblast determination protein 1
UniProt Gene Name	MYOD1
UniProt Synonym Gene Names	BHLHC1; MYF3; MYOD; bHLHc1; Myf-3
UniProt Entry Name	MYOD1_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.