Product Datasheet

MyoD1 Antibody
NB100-56511SS

Unit Size: 0.025 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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NB100-56511SS

MyoD1 Antibody (5.8A)

Product Information	
Unit Size	0.025 mg
Concentration	0.5 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	5.8A
Preservative	0.05% Sodium Azide
Isotype	IgG1 Kappa
Purity	Protein G purified
Buffer	PBS with 0.05% BSA

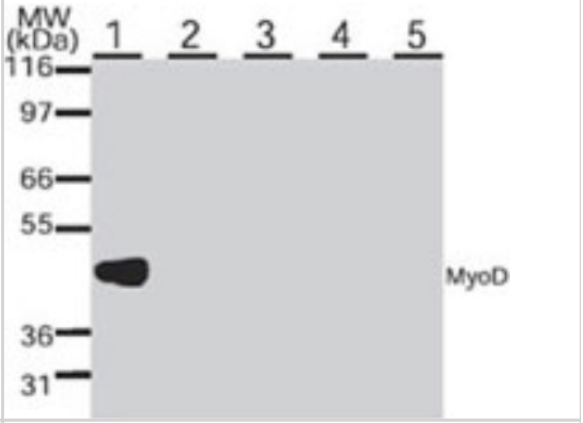
Product Description	
Host	Mouse
Gene ID	4654
Gene Symbol	MYOD1
Species	Human, Mouse, Rat, Feline
Species Reactivity	Cat, Human, Mouse, Rat Not yet tested in other species.
Specificity/Sensitivity	In Rh-30, a ~45 kDa band should be observed.
Immunogen	The 5.8A antibody was made against recombinant mouse MyoD protein but it also recognizes human (myf3), rat, and cat homologs. The epitope of this antibody was mapped to a region within aa 180-189 of mouse MyoD (NP_002469).
Notes	There is considerable literature published using the MyoD, Clone 5.8A antibody. The original development publication of the MyoD antibody, Clone 5.8A showed that the antibody detected MyoD in rhabdomysosarcomas by IHC (frozen) but not in normal adult tissues (Dias, 1992) or normal fetal skeletal muscle. The 5.8A clone also detected MyoD1 in a subset of Wilms' tumors and one ectomesenchyoma, neoplasms known to contain myogenic elements. These results led to the concept in 1992 that the 5.8A clone may be useful for differentiating rhabdomyosarcomas from other soft tissue malignancies. However, as there has been a myriad of publications since Clone 5.8A was first described, users are encourage to consult the scientific literature citing Clone 5.8A to determine the suitability of the antibody for their model system.

Product Application Details	
Applications	Western Blot, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunoprecipitation
Recommended Dilutions	Immunocytochemistry/Immunofluorescence 5 ug/ml, Immunohistochemistry 1:10 -1:500, Immunohistochemistry-Frozen 1:10-1:500, Immunoprecipitation 1 ug/ml, Western Blot 1 ug/ml

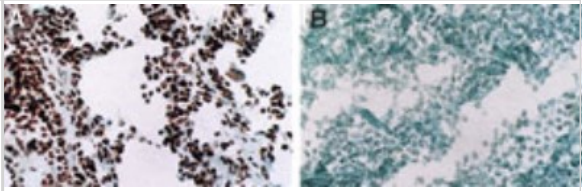
Application Notes	There is considerable literature published using the MyoD, Clone 5.8 antibody. The original development publication of the MyoD antibody, Clone 5.8A showed that the antibody detected MyoD in rhabdomysosarcomas by IHC (frozen) but not in normal adult tissues (Dias, 1992) or normal fetal skeletal muscle. The 5.8A clone also detected MyoD1 in a subset of Wilms' tumors and one ectomesenchyoma, neoplasms known to contain myogenic elements. These results led to the concept in 1992 that the 5.8A clone may be useful for differentiating rhabdomyosarcomas from other soft tissue malignancies. However, as there has been a myriad of publications since Clone 5.8A was first described, users are encourage to consult the scientific literature citing Clone 5.8A to determine the suitability of the antibody for their model system.

Images

Western Blot: MyoD1 Antibody (5.8A) [NB100-56511] - Analysis for MyoD expression in various small round cell tumor lines using 1 ug/ml anti-MyoD mAb. The antibody only reacts with a band of approx. 45 kD in the rhabdomyosarcoma cell line (Rh30, lane 1) but was negative against the primitive neuroectodermal (PFSK-1A, lane 2), lymphoma (EB2, lane 3), neuroblastoma (SK-N-SH, lane 4), and Ewing's sarcoma (SJSA-1, lane 5) cell lines.



Immunohistochemistry: MyoD1 Antibody (5.8A) [NB100-56511] - IHC (F) using the MyoD1, Clone 5.8A antibody in human tissues. A. Rhabdomyosaroma (nuclei are stained), B. Lymphoma (staining is absent)



Publications

Chuang HN, Hsiao KM, Chang HY et al. The homeobox transcription factor Irxl1 negatively regulates MyoD expression and myoblast differentiation. FEBS J. 2014 May 11 [PMID: 24814716] (WB, Mouse)

Bernardi H, Gay S, Fedon Y et al. Wnt4 activates the canonical B-catenin pathway and regulates negatively myostatin: functional implication in myogenesis. Am J Physiol Cell Physiol. 2011 May [PMID: 21248078]

Sell H, Eckardt K, Taube A et al. Skeletal muscle insulin resistance induced by adipocyte-conditioned medium: underlying mechanisms and reversibility. Am J Physiol Endocrinol Metab. 2008 Jun [PMID: 18364460]

Dias P, Parham DM, Shapiro DN et al. Monoclonal antibodies to the myogenic regulatory protein MyoD1: epitope mapping and diagnostic utility. Cancer Res. 1992 Dec 1 [PMID: 1384962]

Sun Y, Ge Y, Drnevich J et al. Mammalian target of rapamycin regulates miRNA-1 and follistatin in skeletal myogenesis. J Cell Biol. 2010 Jun 28 [PMID: 20566686]

Majmundar AJ, Skuli N, Mesquita RC et al. O2 regulates skeletal muscle progenitor differentiation through PI3K/AKT signaling. Molecular and Cellular Biology. 2011 Oct 17. [PMID: 22006022]

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Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our guarantee, please visit www.novusbio.com/guarantee.