Product Datasheet

MyoD Antibody - BSA Free
NBP1-54153

Unit Size: 0.1 ml

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

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Publications: 12

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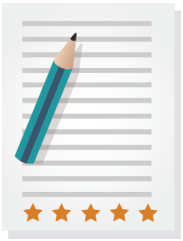
Updated 10/29/2024 v.20.1



NBP1-54153

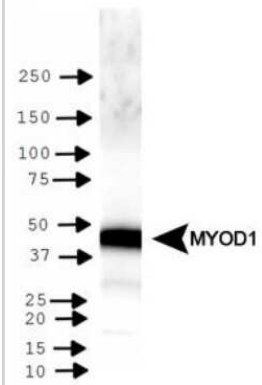
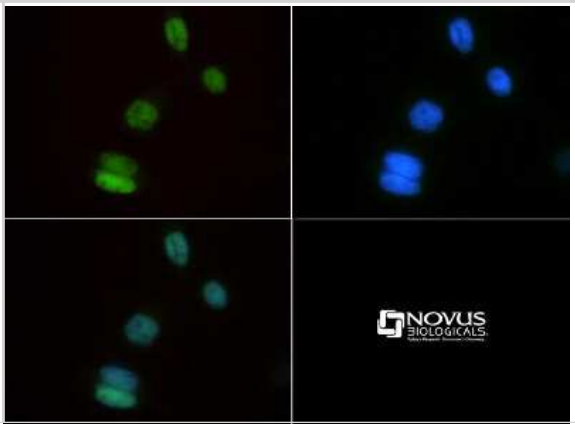
MyoD Antibody - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS

Product Description	
Host	Rabbit
Gene ID	4654
Gene Symbol	MYOD1
Species	Human, Mouse
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 28569745).
Immunogen	A partial recombinant protein made to an N-terminal region of the human MyoD1 protein (within residues 1-150). [Swiss-Prot# P15172]
Notes	Manufactured by Genomic Antibody Technology™. GAT FAQs

Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence
Recommended Dilutions	Western Blot 1:5000, Immunocytochemistry/ Immunofluorescence 1:100
Application Notes	This MyoD1 antibody is useful for ICC/IF and Western blot, where a band is seen ~42 kDa.

Images

Immunocytochemistry/Immunofluorescence: MyoD Antibody [NBP1-54153] - RD cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X PBS + 0.5% Triton X-100. The cells were incubated with anti-MyoD at 5 ug/ml overnight at 4C and detected with an anti-rabbit DyLight 488 (Green) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.	
Western Blot: MyoD1 Antibody [NBP1-54153] - Detection of MYOD1 in RH30 cells.	
Immunocytochemistry/Immunofluorescence: MyoD Antibody [NBP1-54153] - Staing of MYOD1 in RD cells with FITC (green). Nuclei were counterstained with DAPI (blue).	

Publications

Chenchen Li, Haigang Cao, Yingchun Ren, Jinrui Jia, Gongshe Yang, Jianjun Jin, Xin'e Shi Eicosapentaenoic acid-mediated activation of PGAM2 regulates skeletal muscle growth and development via the PI3K/AKT pathway. International journal of biological macromolecules 2024-04-17 [PMID: 38641281]

S Takashima, S Usui, O Inoue, C Goten, K Yamaguchi, Y Takeda, S Cui, Y Sakai, K Hayashi, K Sakata, MA Kawashiri, M Takamura Myocyte-specific enhancer factor 2c triggers transdifferentiation of adipose tissue-derived stromal cells into spontaneously beating cardiomyocyte-like cells Scientific Reports, 2021-01-15;11(1):1520. 2021-01-15 [PMID: 33452355]

Debasmita Bhattacharya, Vicky Shah, Oreoluwa Oresajo, Anthony Scimè p107 mediated mitochondrial function controls muscle stem cell proliferative fates Nature Communications 2021-10-13 [PMID: 34645816]

Cao, H;Du, T;Li, C;Wu, L;Liu, J;Guo, Y;Li, X;Yang, G;Jin, J;Shi, X; MicroRNA-668-3p inhibits myoblast proliferation and differentiation by targeting Appl1 BMC genomics 2023-07-24 [PMID: 37488537] (Western Blot, Block/Neutralize)

Moon S, Dilthey B, Guan S et al. Genetic deletion of skeletal muscle iPLA2? results in mitochondrial dysfunction, muscle atrophy and alterations in whole-body energy metabolism iScience 2023-06-01 [PMID: 37275531] (WB, Mouse)

Ribieras AJ, Ortiz YY, Li Y et al. E-Selectin/AAV Gene Therapy Promotes Myogenesis and Skeletal Muscle Recovery in a Mouse Hindlimb Ischemia Model Cardiovascular therapeutics 2023-05-19 [PMID: 37251271] (ICC/IF, Mouse)

Horioka K, Tanaka H, Okaba K et al. Bioprotective role of platelet-derived microvesicles in hypothermia: Insight into the differential characteristics of peripheral and splenic platelets Thrombosis research 2023-03-01 [PMID: 36758284] (Immunohistochemistry-Paraffin, Mouse)

Huang J, Jian X, Xu M et al. Muscle cytotoxicity and immuno-reactivity analysis of the porous carbon nanospheres fabricated by high temperature calcination Nanomedicine : nanotechnology, biology, and medicine 2022-11-23 [PMID: 36435365] (IF/IHC, Mouse)

Jin Z, Da W, Huang C et al. Synergistic effects of herbal compounds to promote osteoporotic fracture repair through upregulation of B-catenin signaling in skeletal muscle satellite cells Authorea 2022-01-01 (IHC-P, WB, Mouse)

Details:
Dilution used in WB 1:4000, in IHC 1:200

Yehezkely R, Zaffryar-Eilot S, Kaganovsky A et al. Intracellular Role for the Matrix-Modifying Enzyme Lox in Regulating Transcription Factor Subcellular Localization and Activity in Muscle Regeneration Developmental Cell 2020-05-18 [PMID: 32359406] (IHC-Fr, Mouse)

Corbel S, Sampath S, Schmedt C, Zhang Q COMPOSITIONS, METHODS, AND THERAPEUTIC USES RELATED TO FUSOGENIC PROTEIN MINION United States Patent Application 20190263899 2019-08-29

Zhang Q, Vashisht A, O'Rourke J et al. The microprotein Minion controls cell fusion and muscle formation Nature Communications 2017-06-01 [PMID: 28569745] (ICC/IF, Mouse)

Procedures

Western Blot protocol for MyoD1 Antibody (NBP1-54153)
MyoD Antibody:
Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 40 ug of total protein per lane.
2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot.
5. Block the membrane using standard blocking buffer for at least 1 hour.
6. Wash the membrane in wash buffer three times for 10 minutes each.
7. Dilute primary antibody in blocking buffer and incubate 1 hour at room temperature.
8. Wash the membrane in wash buffer three times for 10 minutes each.
9. Apply the diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions.

*Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

Immunocytochemistry/Immunofluorescence Protocol for MyoD1 Antibody (NBP1-54153)
MyoD Antibody:
Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.
2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.
3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.
4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.
6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.
7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,0000 and incubate for 10 minutes. Wash a third time for 10 minutes.
9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.

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Products Related to NBP1-54153

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP1-54153H	MyoD Antibody [HRP]

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.

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