

Myosin 4 Monoclonal Antibody (MF20), Alexa Fluor 488, eBioscience™

Product Details	
Size	100 µg
Species	Bovine, Dog, Chicken, Chimpanzee, Cat, Guinea pig, Human, Mouse, Non-human primate, Rabbit, Rat
Published Species	Artificial Control, Mouse, Human
Expression System	Mouse / IgG2b, kappa
Recommended Isotype Control	Mouse IgG2b kappa Isotype Control (eBMG2b), Alexa Fluor 488, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	MF20
Conjugate	Alexa Fluor® 488
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin
Contains	0.09% sodium azide
Storage Conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_10671272

Applications	Tested Dilution	Publications
Immunocytochemistry (ICC)	5 µg/mL	9 Publications
Immunofluorescence (IF)	5 µg/mL	10 Publications
Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent	-
Flow Cytometry (Flow)	-	2 Publications
Immunohistochemistry (IHC)	-	1 Publication
Immunohistochemistry (Paraffin) (IHC (P))	-	1 Publication
Western Blot (WB)	-	2 Publications

Product Specific Information

Description: This MF20 monoclonal antibody recognizes the heavy chain of myosin II, specifically the light meromyosin portion, in cardiac and skeletal muscle of vertebrates. Myosin II is composed of two heavy chains and four light chains. The 220-kDa myosin heavy chain exists as four different isoforms due to alternative splicing. Myosins interact with actin and hydrolyze ATP to function in muscle contraction, cytokinesis, and phagocytosis.

The MF20 has been shown to react to myosin from a variety of mammalian, avian and amphibian species, including rat, mouse, human, chicken, zebrafish, and dog.

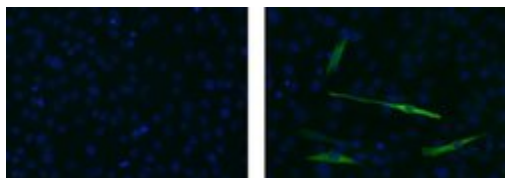
Applications Reported: This MF20 antibody has been reported for use in immunohistochemical staining, immunocytochemistry, and immunohistochemical staining of frozen tissue sections.

Applications Tested: This MF20 antibody has been tested by immunocytochemistry on fixed and permeabilized C2C12 cells that were differentiated for 2 days in low serum medium prior to staining. Staining can be performed using less than or equal to 5 µg/mL. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Excitation: 488 nm; **Emission:** 519 nm; **Laser:** Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For Myosin 4 Monoclonal Antibody (MF20), Alexa Fluor 488, eBioscience™



Myosin 4 Antibody (53-6503-82) in ICC

Immunocytochemistry of differentiated C2C12 cells using 5 µg/mL of Mouse IgG2b Isotype Control Alexa Fluor® 488 (Product # 53-4732-80) (left) or 5 µg/mL Anti-Myosin Heavy Chain Alexa Fluor® 488 (right). Myosin is positive in a subpopulation of differentiated cells. Nuclei are counterstained with DAPI.

[View more figures on thermofisher.com](https://www.thermofisher.com)

Immunocytochemistry (9)

Scientific reports

TAK-242, a specific inhibitor of Toll-like receptor 4 signalling, prevents endotoxemia-induced skeletal muscle wasting in mice.

"Published figure using Myosin 4 monoclonal antibody (Product # 53-6503-82) in Immunofluorescence"

Authors: Ono Y, Maejima Y, Saito M, Sakamoto K, Horita S, Shimomura K, Inoue S, Kotani J

Species
Not Applicable

Dilution
Not Cited

Year
2020

Nanotheranostics

Ternary Aligned Nanofibers of RGD Peptide-Displaying M13 Bacteriophage/PLGA/Graphene Oxide for Facilitated Myogenesis.

"53-6503 was used in Immunocytochemistry-immunofluorescence to fabricate poly(lactic-co-glycolic acid) nanofibre sheets decorated with graphene oxide and RGD peptid, as biofunctional scaffolds."

Authors: Shin YC, Kim C, Song SJ, Jun S, Kim CS, Hong SW, Hyon SH, Han DW, Oh JW

Species
Mouse

Dilution
1:200

Year
2019

[View more ICC references on thermofisher.com](#)

Immunofluorescence (10)

Scientific reports

TAK-242, a specific inhibitor of Toll-like receptor 4 signalling, prevents endotoxemia-induced skeletal muscle wasting in mice.

"Published figure using Myosin 4 monoclonal antibody (Product # 53-6503-82) in Immunofluorescence"

Authors: Ono Y, Maejima Y, Saito M, Sakamoto K, Horita S, Shimomura K, Inoue S, Kotani J

Species
Not Applicable

Dilution
Not Cited

Year
2020

Nanotheranostics

Ternary Aligned Nanofibers of RGD Peptide-Displaying M13 Bacteriophage/PLGA/Graphene Oxide for Facilitated Myogenesis.

"53-6503 was used in Immunocytochemistry-immunofluorescence to fabricate poly(lactic-co-glycolic acid) nanofibre sheets decorated with graphene oxide and RGD peptid, as biofunctional scaffolds."

Authors: Shin YC, Kim C, Song SJ, Jun S, Kim CS, Hong SW, Hyon SH, Han DW, Oh JW

Species
Mouse

Dilution
1:200

Year
2019

[View more IF references on thermofisher.com](#)

More applications with references on thermofisher.com

WB (2) **Flow (2)** **IHC (P) (1)** **IHC (1)**

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.