

Actin Monoclonal Antibody (ACTN05 (C4))

Product Details

Size	500 µL
Species	Bovine, Dog, Chicken, Human, Mouse, Pig, Protozoa, Rabbit, Rat
Published Species	Yeast, Rat, Pig, Non-human primate, Hamster, Zebrafish, Fish, Human, Mouse, Rhesus monkey, Xenopus, Dog, Ferret, Rabbit, Fruit fly
Expression System	Mouse / IgG1, kappa
Class	Monoclonal
Type	Antibody
Clone	ACTN05 (C4)
Conjugate	Unconjugated
Immunogen	Chicken gizzard actin
Form	Liquid
Concentration	0.2 mg/mL
Purification	Protein G
Storage buffer	PBS, pH 7.4, with 0.2% BSA
Contains	15mM sodium azide
Storage Conditions	4° C
RRID	AB_11004139

Applications	Tested Dilution	Publications
Immunocytochemistry (ICC)	1:10-1:200	2 Publications
Immunofluorescence (IF)	1:10-1:200	-
Immunohistochemistry (Paraffin) (IHC (P))	1:200-1:400	-
Immunoprecipitation (IP)	2 µg	5 Publications
Western Blot (WB)	0.5 µg/mL	286 Publications
Immunohistochemistry (IHC)	-	3 Publications
Miscellaneous PubMed (Misc)	-	4 Publications

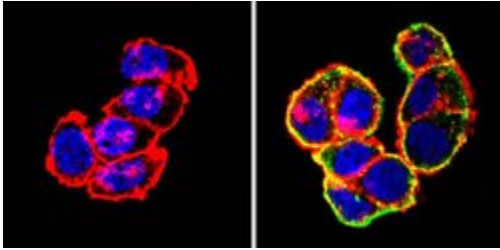
Product Specific Information

MA5-11869 reacts with all six known vertebrate isoforms of actin (MW ~42kDa), and with two cytoplasmic actins (beta and gamma), which are highly homologous to each other but differ from the muscle actins by ~25 amino acid residues. This product is highly recommended for monitoring total protein load on Western blots.

Staining of formalin-fixed, paraffin-embedded tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0 for 10-20 minutes, followed by cooling at room temperature for 20 minutes. Suggested positive controls are HeLa cells and skeletal muscle.

MA5-11869 is a suggested replacement to Product # 82353, clone # C4.

Product Images For Actin Monoclonal Antibody (ACTN05 (C4))

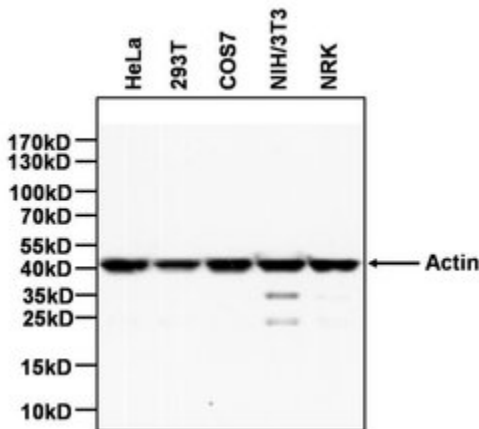


Actin Antibody (MA5-11869) in IF

Immunofluorescent analysis of Actin pan (green) showing staining in the cytoplasm of T-47D cells (right) compared to a negative control without primary antibody (left). Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with an Actin pan monoclonal antibody (Product # MA5-11869) in 3% BSA-PBS at a dilution of 1:100 and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight-conjugated secondary antibody in PBS at room temperature in the dark. F-actin (red) was stained with a fluorescent red phalloidin and nuclei (blue) were stained with Hoechst or DAPI. Images were taken at a magnification of 60x.

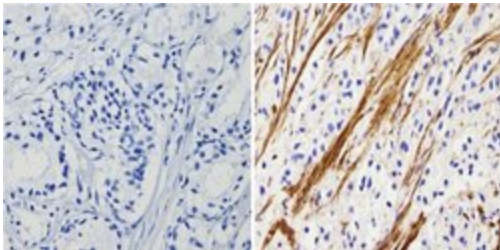
Actin Antibody (MA5-11869) in WB

Western blot analysis of actin was performed by loading 25 µg of various whole cell lysates and 10 µL of PageRuler Plus Prestained Protein Ladder (Product # 26619) per well onto a 4-20% Tris-HCl polyacrylamide gel. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in TBST for at least 1 hour. The membrane was probed with a pan actin monoclonal antibody (Product # MA5-11869) at a dilution of 1:3200 overnight at 4°C on a rocking platform, washed in TBS-0.1% Tween-20, and probed with HRP-conjugated goat anti-mouse IgG secondary antibody (Product # 31430) at a dilution of 1:40,000 for at least 1 hour. Chemiluminescent detection was performed using SuperSignal West Pico (Product # 34080).



Actin Antibody (MA5-11869) in IHC (P)

Immunohistochemistry analysis of Actin pan showing positive staining in the cytoplasm of paraffin-treated Human prostate carcinoma (right) compared with a negative control in the absence of primary antibody (left). To expose target proteins, antigen retrieval method was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Following antigen retrieval, tissues were blocked in 3% H₂O₂-methanol for 15 min at room temperature, washed with ddH₂O and PBS, and then probed with a Actin pan monoclonal antibody (Product # MA5-11869) diluted by 3% BSA-PBS at a dilution of 1:200 overnight at 4°C in a humidified chamber. Tissues were washed extensively PBST and detection was performed using an HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.



View more figures on thermofisher.com

300 References

Western Blot (286)

Newt cells secrete extracellular vesicles with therapeutic bioactivity in mammalian cardiomyocytes.

"Published figure using Actin monoclonal antibody (Product # MA5-11869) in Western Blot"

Authors: Middleton RC,Rogers RG,De Couto G,Tseliou E,Luther K,Holewinski R,Soetkamp D, Van Eyk JE,Antes T.J, Marbán E

Species
Not Applicable

Dilution
Not Cited

Year
2020

Frontiers in physiology

The Non-ureogenic Stinging Catfish, *Heteropneustes fossilis*, Actively Excretes Ammonia With the Help of Na⁺/K⁺-ATPase When Exposed to Environmental Ammonia.

"Published figure using Actin monoclonal antibody (Product # MA5-11869) in Western Blot"

Authors: Chew SF,Tan SZL,Ip SCY,Pang CZ,Hiong KC,Ip YK

Species
Not Applicable

Dilution
Not Cited

Year
2020

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

Miscellaneous PubMed (4)

Molecular medicine reports

Effective elimination of chronic lymphocytic leukemia cells in the stromal microenvironment by a novel drug combination strategy using redox-mediated mechanisms.

"MA5-11869 was used in western blot to investigate how redox reactions affect treatment of chronic lymphocytic leukemia"

Authors: Zhang W,Pelicano H,Yin R,Zeng J,Wen T,Ding L,Huang R

Species
Human

Dilution
1:10,000

Year
2015

PLoS biology

CDK8-Cyclin C Mediates Nutritional Regulation of Developmental Transitions through the Ecdysone Receptor in Drosophila.

"Published figure using Actin monoclonal antibody (Product # MA5-11869) in Western Blot"

Authors: Xie XJ,Hsu FN,Gao X,Xu W,Ni JQ,Xing Y,Huang L,Hsiao HC,Zheng H,Wang C,Zheng Y,Xiaoli AM,Yang F, Bondos SE, Ji JY

Species
Fruit fly

Dilution
1:4000

Year
2015

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

More applications with references on thermofisher.com

IHC (3) **IP (5)** **ICC (2)**

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