

For Research Use Only

# Beta Actin Monoclonal antibody, PBS Only



Catalog Number: 66009-1-PBS

Featured Product

## Basic Information

<b>Catalog Number:</b> 66009-1-PBS	<b>GenBank Accession Number:</b> NM_001101	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ug , Concentration: 1 mg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 60	<b>CloneNo.:</b> 2D4H5
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> P60709	
<b>Isotype:</b> IgG2b	<b>Full Name:</b> actin, beta	
	<b>Calculated MW:</b> 42 kDa	
	<b>Observed MW:</b> 42 kDa	

## Applications

**Tested Applications:**  
WB, IP, IF, FC, IHC, ELISA

**Species Specificity:**  
human, mouse, rat, hamster, monkey, dog, pig, chicken, rabbit, zebrafish

## Background Information

Actins are highly conserved globular proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells. At least six isoforms of actins are known in mammals and other vertebrates: alpha (ACTC1, cardiac muscle 1), alpha 1 (ACTA1, skeletal muscle) and 2 (ACTA2, aortic smooth muscle), beta (ACTB), gamma 1 (ACTG1) and 2 (ACTG2, enteric smooth muscle). Beta and gamma 1 are two non-muscle actin proteins. Most actins consist of 376aa, while ACTG2 (rich in muscles) has 375aa and ACTG1 (found in non-muscle cells) has only 374aa. Beta actin has been widely used as the internal control in RT-PCR and Western Blotting as a 42-kDa protein. However, the 41 kDa cleaved fragment of beta actin can be generated during apoptosis process. This antibody can recognize all the actins. The isotype of this antibody is IgG2b. For murine tissue sample, conjugated antibody (HRP-66009) or rabbit antibody (20536-1-AP) is preferable.

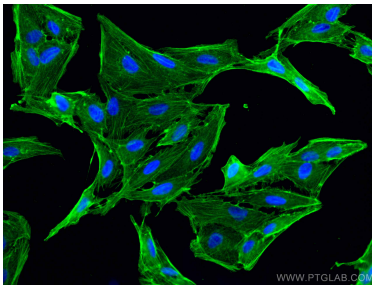
## Storage

**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS only  
Aliquoting is unnecessary for -20°C storage

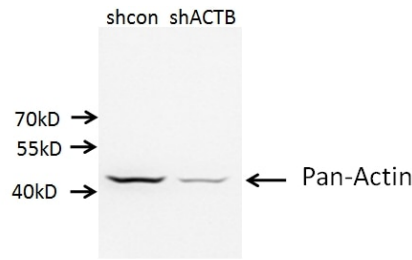
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

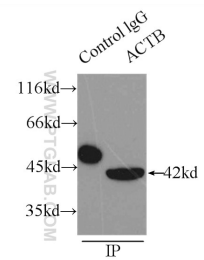
## Selected Validation Data



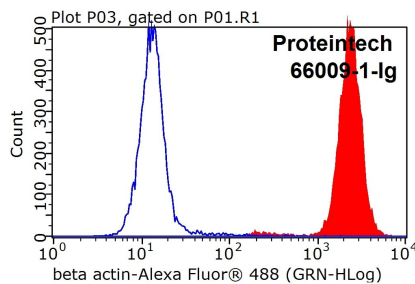
Immunofluorescent analysis of (-20°C Methanol) fixed MDCK cells using Beta Actin antibody (66009-1-Ig, Clone: 2D4H5) at dilution of 1:1000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L). This data was developed using the same antibody clone with 66009-1-PBS in a different storage buffer formulation.



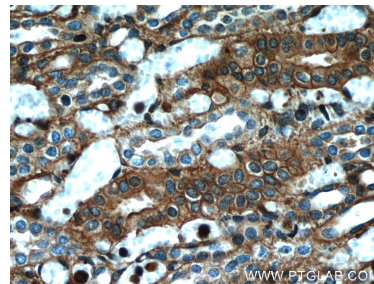
A549 cells (shcontrol and shRNA of Beta Actin) were subjected to SDS PAGE followed by western blot with 66009-1-Ig (Mouse anti Pan-actin antibody) at dilution of 1:10000. This data was developed using the same antibody clone with 66009-1-PBS in a different storage buffer formulation.



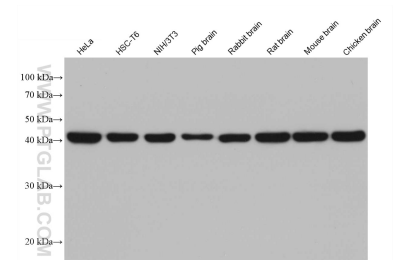
IP result of anti-Beta Actin (IP:66009-1-Ig, 3ug; Detection:66009-1-Ig 1:10000) with HeLa cells lysate 3100ug. This data was developed using the same antibody clone with 66009-1-PBS in a different storage buffer formulation.



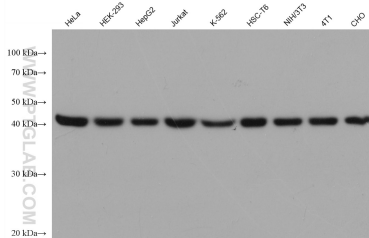
1X10<sup>6</sup> HeLa cells were stained with 0.05 ug Anti-Human Beta Actin (66009-1-Ig, Clone:2D4H5) and FITC-Goat anti-mouse IgG at dilution 1:100 (red), or stained with 0.05 ug isotype control and FITC-Goat anti-mouse IgG at dilution 1:100 (blue). Cells were fixed with 4% PFA and permeabilized with 0.1% TritonX-100. This data was developed using the same antibody clone with 66009-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human kidney using 66009-1-Ig at dilution of 1:500 (under 40x lens). This data was developed using the same antibody clone with 66009-1-PBS in a different storage buffer formulation.



Various lysates were subjected to SDS PAGE followed by western blot with 66009-1-Ig (Beta Actin antibody) at dilution of 1:100000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 66009-1-PBS in a different storage buffer formulation.



Various lysates were subjected to SDS PAGE followed by western blot with 66009-1-Ig (Beta Actin antibody) at dilution of 1:200000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 66009-1-PBS in a different storage buffer formulation.