

For Research Use Only

# Beta Actin Monoclonal antibody

Catalog Number: 60008-1-Ig **3254 Publications**



## Basic Information

Catalog Number:

60008-1-Ig

Concentration:

1000 ug/ml

Source:

Mouse

Isotype:

IgM

Immunogen Catalog Number:

AG0297

GenBank Accession Number:

BC002409

GeneID (NCBI):

60

UNIPROT ID:

P60709

Full Name:

actin, beta

Calculated MW:

375 aa, 42 kDa

Observed MW:

42 kDa

Purification Method:

Caprylic acid/ammonium sulfate precipitation

CloneNo.:

7D2C10

Recommended Dilutions:

WB: 1:5000-1:50000

IHC: 1:50-1:500

IF-P: 1:500-1:2000

IF/ICC: 1:400-1:1600

## Applications

Tested Applications:

WB, IHC, IF/ICC, IF-P, ELISA

Cited Applications:

WB, IHC, IF, IP, CoIP

Species Specificity:

human, mouse, rat, zebrafish, plant

Cited Species:

human, rat, chicken, goat, yeast, tick, arabidopsis, terminalia bellirica, rare minnow, cat

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

Positive Controls:

**WB** : multi-cells/tissue, HeLa cells, MCF-7 cells, HEK-293 cells, A549 cells, rice whole plant tissue, arabidopsis whole plant tissue

**IHC** : mouse heart tissue, human brain tissue, human kidney tissue, human lung tissue, human ovary tissue, human placenta tissue, human spleen tissue, human testis tissue

**IF-P** : rat brain tissue,

**IF/ICC** : MDCK cells,

## Background Information

Beta actin, also named as ACTB and F-Actin, belongs to the actin family. 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 37-40 kDa cleaved fragment of beta actin can be generated during apoptosis process. This antibody can recognize all the actins.

## Notable Publications

Author	Pubmed ID	Journal	Application
Qiaoxia Zheng	36198318	Cell	WB
Menghui Xu	36290677	Antioxidants (Basel)	WB
BreAnna Cameron	34590699	Biol Open	WB

## Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

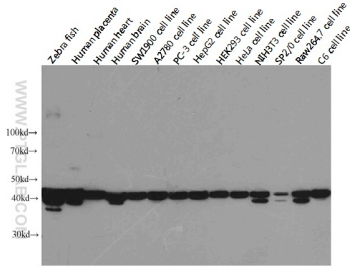
T: 4006900926

E: Proteintech-CN@ptglab.com

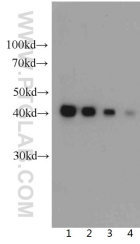
W: ptgcn.com

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

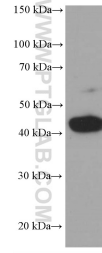
## Selected Validation Data



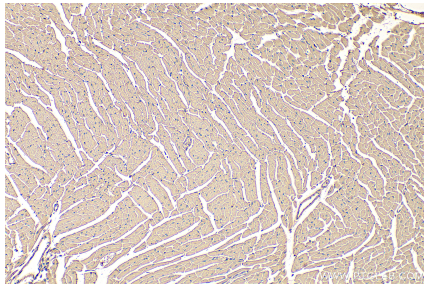
Western blot analysis of Beta-actin in various tissues and cell lines using Proteintech antibody 60008-1-Ig at a dilution of 1:5000. Extra bands were detected in some species with unknown reason.



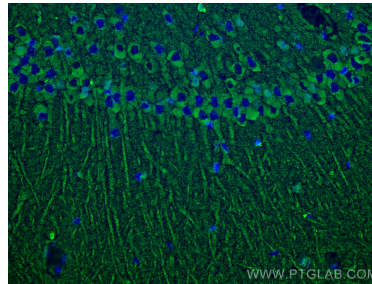
Western blot of Hela cell with anti-Actin-Beta (60008-1-Ig) at various dilutions.



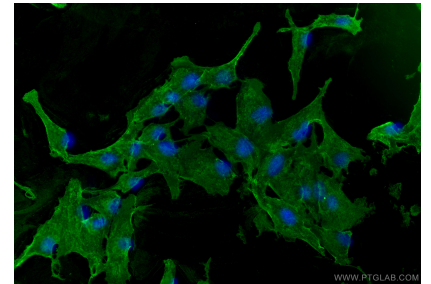
arabidopsis whole plant tissue were subjected to SDS PAGE followed by western blot with 60008-1-Ig (beta actin Antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



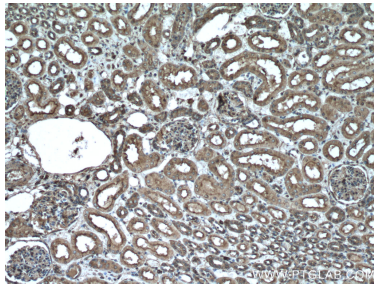
Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 60008-1-Ig (Beta Actin antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded rat brain tissue using Beta Actin antibody (60008-1-Ig, Clone: 7D2C10) at dilution of 1:1000 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed MDCK cells using Beta Actin antibody (60008-1-Ig, Clone: 7D2C10) at dilution of 1:800 and Multi-rAb Coralite® Plus 488-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (RGAM002).



Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 60008-1-Ig (beta Actin antibody) at dilution of 1:500 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0)).