

For Research Use Only

Beta Actin Monoclonal antibody

Catalog Number: 60008-1-Ig **3150 Publications**



Basic Information

| | | |
|---|--|--|
| Catalog Number: 60008-1-Ig | GenBank Accession Number: BC002409 | Purification Method: Protein G purification |
| Size: 150ul , Concentration: 1000 ug/ml by Bradford method using BSA as the standard; | GeneID (NCBI): 60 | CloneNo.: 7D2C10 |
| Source: Mouse | UNIPROT ID: P60709 | Recommended Dilutions: WB 1:5000-1:50000 IHC 1:50-1:500 IF-P 1:500-1:2000 IF/ICC 1:400-1:1600 |
| Isotype: IgM | Full Name: actin, beta | |
| Immunogen Catalog Number: AG0297 | Calculated MW: 375 aa, 42 kDa | |
| | Observed MW: 42 kDa | |

Applications

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| Tested Applications: WB, IHC, IF/ICC, IF-P, ELISA | Positive Controls: WB : multi-cells/tissue, HeLa cells, MCF-7 cells, HEK-293 cells, A549 cells, rice whole plant tissue, arabidopsis whole plant tissue |
| Cited Applications: WB, IHC, IF, IP, CoIP | 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 |
| Species Specificity: human, mouse, rat, zebrafish, plant | IF-P: rat brain tissue, |
| Cited Species: human, rat, chicken, goat, yeast, tick, arabidopsis, terminalia bellirica, rare minnow, cat | IF/ICC : MDCK cells, |
| Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0 | |

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

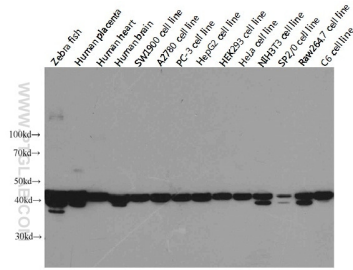
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

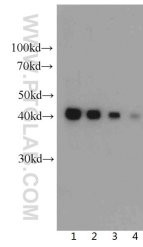
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

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

Selected Validation Data

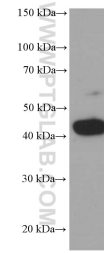


Western blot analysis of Beta-actin in various tissues and cell lines using Proteintech antibody 60008-1-Ig at a dilution of 1:5000. Extra bands were detected in some species with unknown reason.

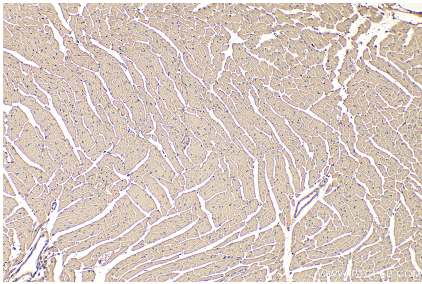


Western blot of HeLa cell with anti-Actin-Beta (60008-1-Ig) at various dilutions.

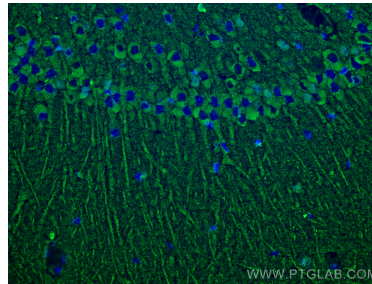
HeLa whole cell lysate (20ug/lane) was subjected to SDS-PAGE followed by western blot with 60008-1-Ig at dilution of :
 Lane 1: 1:1000
 Lane 2: 1:2000
 Lane 3: 1:4000
 Lane 4: 1:8000



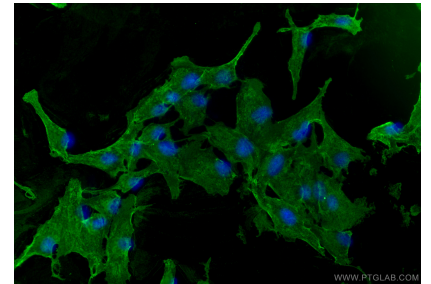
Arabidopsis whole plant tissue were subjected to SDS PAGE followed by western blot with 60008-1-Ig (beta actin Antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



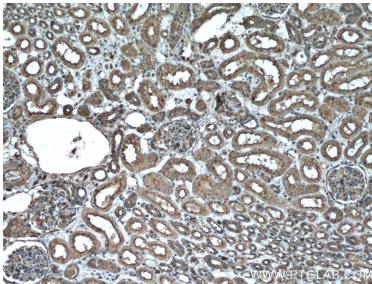
Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 60008-1-Ig (Beta Actin antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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).