beta Actin Monoclonal ANTIBODY

Catalog Number: 60008-1-Ig

Basic Information

Catalog Number: 60008-1-Ig
Size: 150 μg/150 μl
Source: Mouse
Isotype: IgM
Purification Method: Caprylic acid/ammonium sulfate precipitation
Immunogen Catalog Number: AG0297
GenBank Accession Number: BC002409
GeneID (NCBI): 60
Full Name: actin, beta
Calculated MW: 375aa, 42 kDa
Observed MW: 42 kDa

Recommended Dilutions:
WB: 1:5000-1:50000
IHC: 1:50-1:500
IF: 1:50-1:500

Applications

Tested Applications: FC, IF, IHC, WB, ELISA
Cited Applications: IF, IHC, WB
Species Specificity: human, mouse, rat, pig, plant, Zebrafish
Cited Species: A. sinica, canine, cat, Chicken, cow, Drosophila, duck, eels, Eelworm, Gekko japonicus

Note: 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

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<th>Author</th>
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<td>26963022</td>
<td>Heart Vessels</td>
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<td>Xujuan Sun</td>
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<td>Xueling He</td>
<td>28969971</td>
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Storage

Storage: Store at -20°C. Stable for one year after shipment.
Storage Buffer: PBS with 0.1% sodium azide and 50% glycerol pH 7.3.
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
W: ptglab.com

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**Selected Validation Data**

- **Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using 60008-1-Ig (beta Actin antibody) at dilution of 1:100 and Alexa Fluor 488-Conjugated AffiniPure Goat Anti-Mouse (pGdHL)**

- **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.**

- **Immunohistochemical of paraffin-embedded human colon using 60008-1-Ig (ACTB antibody) at dilution of 1:50 (under 10x lens)**

- **Immunohistochemical of paraffin-embedded human colon using 60008-1-Ig (ACTB antibody) at dilution of 1:50 (under 40x lens)**

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

- **Western blot of 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.**

- **1X10^6 HepG2 cells were stained with 0.2ug beta actin antibody (60008-1-lg, red) and control antibody (blue). Fixed with 4% MCh blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Mouse (pGdHL) with dilution 1:1000.**