

For Research Use Only

Beta Actin Recombinant antibody

Catalog Number: 81115-1-RR **253 Publications**



Basic Information

| | | |
|---|--|--|
| Catalog Number: 81115-1-RR | GenBank Accession Number: BC002409 | Purification Method: Protein A purification |
| Size: 1000 µg/ml | GeneID (NCBI): 60 | CloneNo.: 4H1 |
| Source: Rabbit | UNIPROT ID: P60709 | Recommended Dilutions: WB 1:5000-1:50000 IHC 1:1000-1:4000 IF 1:950-1:3800 |
| Isotype: IgG | Full Name: actin, beta | |
| Immunogen Catalog Number: AG14521 | Calculated MW: 375 aa, 42 kDa | |
| | Observed MW: 42 kDa | |

Applications

Tested Applications:
IF/ICC, IHC, WB, ELISA

Cited Applications:
WB, IF

Species Specificity:
Human, pig, rat, mouse

Cited Species:
human, chicken, rat, mouse, monkey, pig

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: HeLa cells, HEK-293 cells, Jurkat cells, HSC-T6 cells, NIH/3T3 cells, rat brain tissue, mouse brain tissue, pig brain tissue

IHC: rat colon tissue,

IF: U2OS cells, A549 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, 31, 15 kDa cleaved fragment of beta actin can be generated during apoptosis process. This antibody was generated against N-terminal region of human beta actin protein and can cross-react with other actins. (9173887, 11217076, 10229193)

Notable Publications

| Author | Pubmed ID | Journal | Application |
|--------------|-----------|---------------------|-------------|
| Xin Xu | 36178722 | Environ Toxicol | WB |
| Jiying Hou | 36077440 | Int J Mol Sci | WB |
| Jialiang Luo | 36327873 | Int Immunopharmacol | WB |

Storage

Storage:

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

Storage Buffer:

PBS with 0.02% 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:

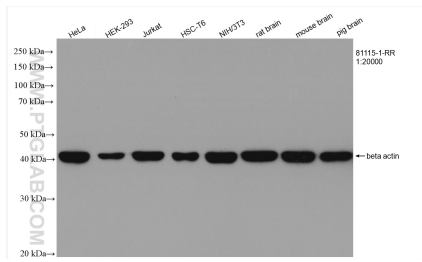
T: 4006900926

E: Proteintech-CN@ptglab.com

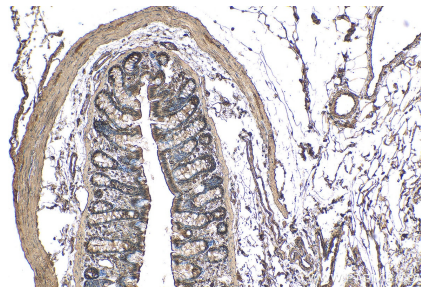
W: ptgcn.com

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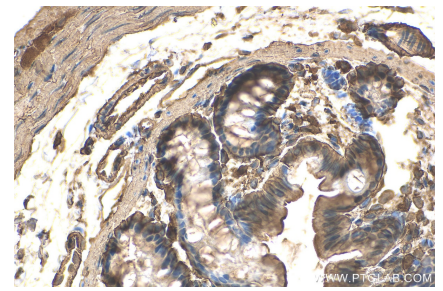
Selected Validation Data



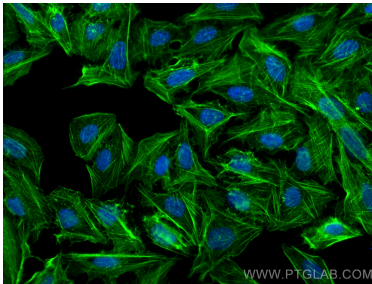
Various lysates were subjected to SDS PAGE followed by western blot with 81115-1-RR (beta actin antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded rat colon tissue slide using 81115-1-RR (Beta Actin antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded rat colon tissue slide using 81115-1-RR (Beta Actin antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed U2OS cells using beta actin antibody (81115-1-RR, Clone: 4H1) at dilution of 1:1900 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).