

For Research Use Only

Beta Actin Recombinant antibody

Catalog Number: 81115-1-RR **661 Publications**



Basic Information

Catalog Number: 81115-1-RR	GenBank Accession Number: BC002409	Purification Method: Protein A purification
Concentration: 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/ICC 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: WB, IHC, IF/ICC, ELISA	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/ICC : U2OS cells, MDCK cells
Cited Applications: WB, IF, IP	
Species Specificity: Human, pig, rat, mouse	
Cited Species: human, mouse, rat, pig, monkey, chicken, bovine, goat	
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, 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

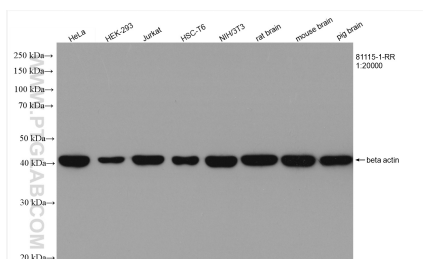
Storage

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

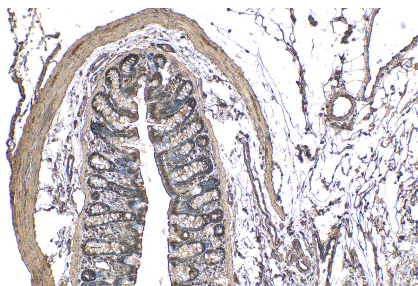
For technical support and original validation data for this product please contact:
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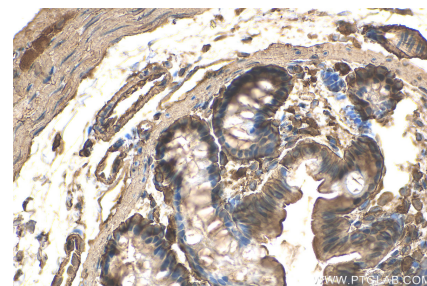
Selected Validation Data



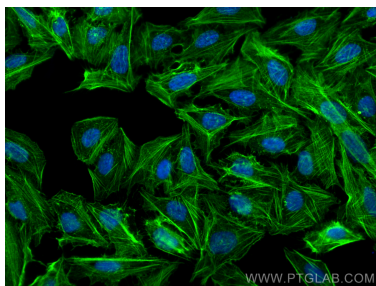
Various lysates were subjected to SDS PAGE followed by western blot with 81115-1-RR (beta actin antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



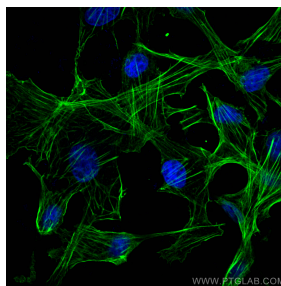
Immunohistochemical analysis of paraffin-embedded rat colon tissue slide using 81115-1-RR (Beta Actin antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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 Goat Anti-Rabbit IgG(H+L).



Immunofluorescent analysis of (4% PFA) fixed MDCK cells using Beta Actin antibody (81115-1-RR, Clone: 4H1) at dilution of 1:4000 and Multi-rAb CoraLite® Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002).