

For Research Use Only

Beta Actin Polyclonal antibody

Catalog Number: 20536-1-AP

Featured Product

1727 Publications



Basic Information

Catalog Number: 20536-1-AP	GenBank Accession Number: BC002409	Purification Method: Antigen affinity purification
Size: 150ul , Concentration: 600 µg/ml by Nanodrop and 433 µg/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 60	Recommended Dilutions: WB 1:1000-1:5000 IHC 1:50-1:500 IF 1:200-1:800
Source: Rabbit	Full Name: actin, beta	
Isotype: IgG	Calculated MW: 375 aa, 42 kDa	
Immunogen Catalog Number: AG14521	Observed MW: 42 kDa	

Applications

Tested Applications: FC, IF, IHC, WB, ELISA	Positive Controls: WB : HEK-293 cells, A549 cells, C6 cells, NIH/3T3 cells, mouse colon tissue
Cited Applications: CoIP, IF, IHC, IP, WB	IHC : human colon tissue, human kidney tissue
Species Specificity: human, mouse, rat, monkey, canine	IF : MDCK cells,
Cited Species: bovine, Camelus bactrianus, canine, carp, chicken, fish, goat, grouper, Hamster, human	
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
Ling Guo	34867437	Front Physiol	WB
Xuedan Li	32999434	Sci Rep	WB
Yi Fang	31662984	Biomed Res Int	WB

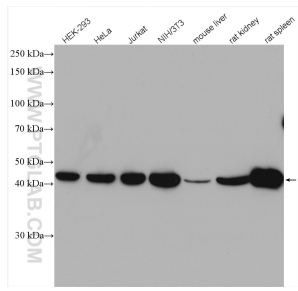
Storage

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

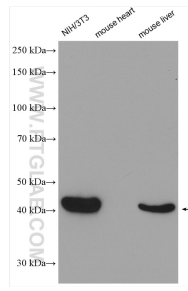
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

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

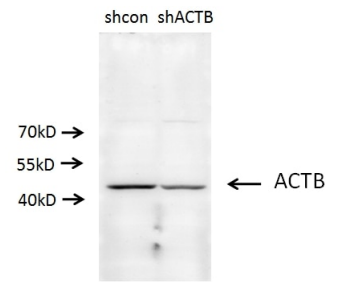
Selected Validation Data



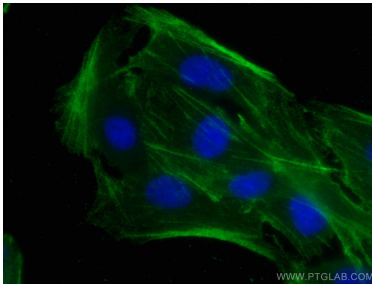
Various lysates were subjected to SDS PAGE followed by western blot with 20536-1-AP (beta Actin antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



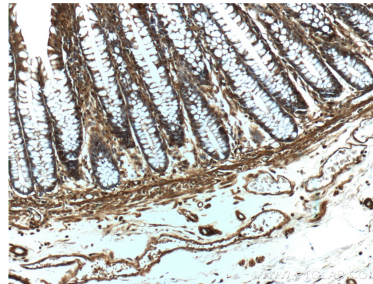
Various lysates were subjected to SDS PAGE followed by western blot with 20536-1-AP (beta Actin antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. beta actin is not expressed in adult heart thus we don't recommend it for heart tissue detection.



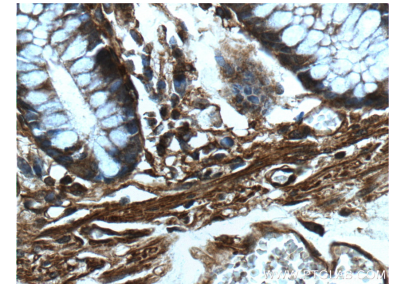
A549 cells (shcontrol and shRNA of Beta actin) were subjected to SDS PAGE followed by western blot with 20536-1-AP (ACTB antibody) at dilution of 1:500.



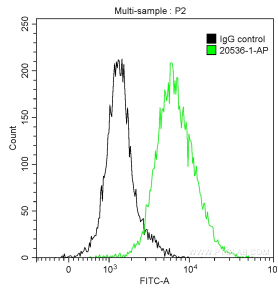
Immunofluorescent analysis of (-20°C Methanol) fixed MDCK cells using Beta Actin antibody (20536-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 20536-1-AP (beta actin Antibody) at dilution of 1:200 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 20536-1-AP (beta actin Antibody) at dilution of 1:200 (under 40x lens).



1X10⁶ Hep2 cells were intracellularly stained with 0.2 ug Anti-Human Beta Actin (20536-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (green), and 0.2 ug Control Antibody. Cells were fixed with 90% MeOH.