

Beta Actin Monoclonal antibody

Catalog Number: 60008-1-Ig 2931 Publications

Basic Information

Catalog Number: 60008-1-Ig	GenBank Accession Number: BC002409	Purification Method: Caprylic acid/ammonium sulfate precipitation
Size: 150ul, Concentration: 1000 µg/ml by 60 Nanodrop and 1000 µg/ml by Bradford method using BSA as the standard;	GeneID (NCBI): Full Name: actin, beta	CloneNo.: 7D2C10
Source: Mouse	Calculated MW: 375 aa, 42 kDa	Recommended Dilutions: WB 1:5000-1:50000 IHC 1:50-1:500
Isotype: IgM	Observed MW: 42 kDa	
Immunogen Catalog Number: AG0297		

Applications

Tested Applications:

FC, IHC, WB, ELISA

Cited Applications:

ColP, IF, IHC, IP, WB

Species Specificity:

human, mouse, rat, plant, Zebrafish

Cited Species:

cat, human, goat, tick, chicken, yeast, rat, Arabidopsis, Terminalia bellirica, Rare minnow

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: multi-cells/tissue, HeLa cells, MCF-7 cells, HEK-293 cells, A549 cells, rice whole plant tissue, arabidopsis whole plant tissue

IHC: human colon tissue, human brain tissue, human kidney tissue, human lung tissue, human spleen tissue, human ovary tissue, human testis tissue, human placenta tissue, human heart tissue

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 pH 7.3.

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

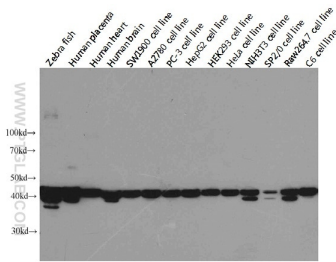
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

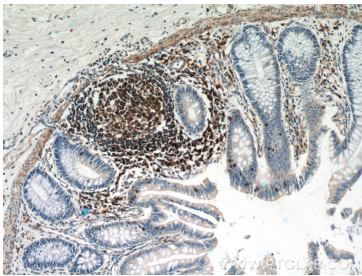
E: proteintech@ptglab.com
W: ptglab.com

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

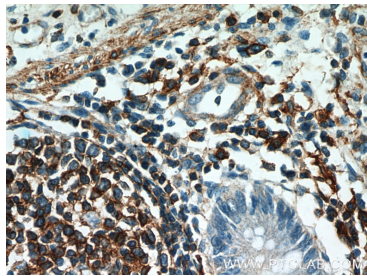
Selected Validation Data



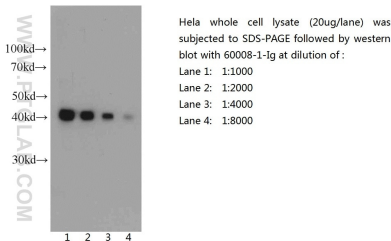
Western blot analysis of Beta-actin in various tissues and cell lines using Proteintech antibody 60008-1-Ig at a dilution of 1:5000. Extra bands were detected in some species with unknown reason.



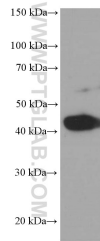
Immunohistochemical analysis of paraffin-embedded human colon using 60008-1-Ig(ACTB antibody) at dilution of 1:50 (under 10x lens).



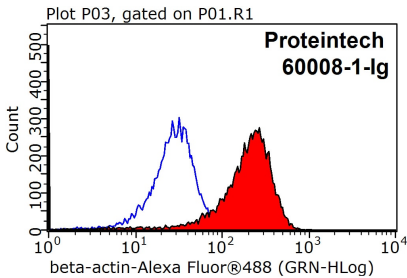
Immunohistochemical analysis of paraffin-embedded human colon using 60008-1-Ig(ACTB antibody) at dilution of 1:50 (under 40x lens).



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



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-Ig, red) and control antibody (blue). Fixed with 90% MeOH blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Mouse IgG(H+L) with dilution 1:1000.