For Research Use Only

CoraLite®594-conjugated Beta Actin Monoclonal antibody

Catalog Number:CL594-66009 Featured Product 39 Publications

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Basic Information

Catalog Number:
CL594-66009

Source:
Mouse

Isotype:
IgG2b

GenBank Accession Number:
NM_001101

GeneID (NCBI):
60

UNIPROT ID:
P60709

Full Name:
actin, beta

Calculated MW:
42 kDa

Observed MW:
42 kDa

Purification Method:
Protein A purification

CloneNo.:
2D4H5

Recommended Dilutions:
WB: 1:500-1:2000
IF/ICC: 1:50-1:500
FC (Intra): 0.80 ug per 10^6 cells in a 100 µl suspension

Excitation/Emission maxima wavelengths:
588 nm / 604 nm

Applications

Tested Applications:
WB, IF/ICC, FC (Intra)

Cited Applications:
WB, IF

Species Specificity:
human, mouse, rat, canine, monkey, zebrafish, hamster

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

Positive Controls:

WB : HepG2 cells, HeLa cells, HEK-293 cells

IF/ICC : MDCK cells, HepG2 cells

FC (Intra) : HeLa cells,

Background Information

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 41 kDa cleaved fragment of beta actin can be generated during apoptosis process.This antibody can recognize all the actins. The isotype of this antibody is IgG2b. And the anitbody is CL594(Ex/Em 593 nm/614 nm) conjugated.

Notable Publications

Author	Pubmed ID	Journal	Application
Jinxia Sun	35589023	J Ethnopharmacol	WB
Zhixiong Liu	35143418	J Clin Invest	WB
Wenxue Liang	35985246	Tissue Cell	WB

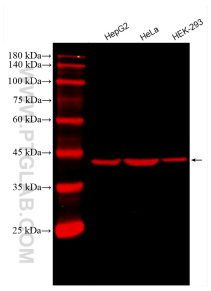
Storage

Storage:
Store at -20°C. Avoid exposure to light. Stable for one year after shipment.
Storage Buffer:
PBS with 50% glycerol, 0.05% Proclin300, 0.5% BSA, pH7.3
Aliquoting is unnecessary for -20°C storage

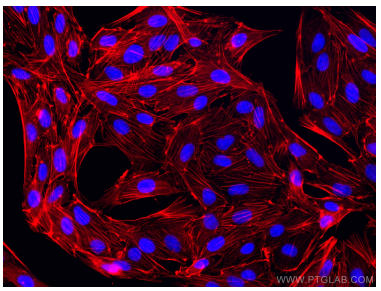
For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

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

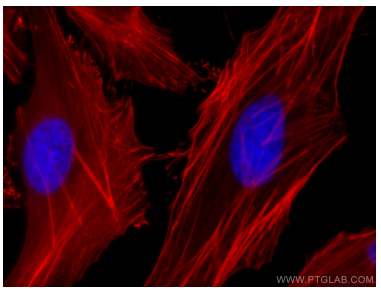
Selected Validation Data



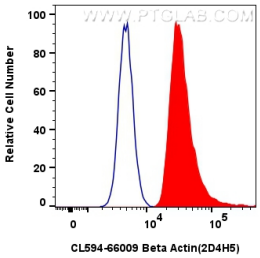
Various lysates were subjected to SDS PAGE followed by western blot with CL594-66009 (Beta Actin antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (-20°C Methanol) fixed MDCK cells using CoraLite®594 Beta Actin antibody (CL594-66009, Clone: 2D4H5) at dilution of 1:200.



Immunofluorescent analysis of (-20°C Methanol) fixed HepG2 cells using CoraLite®594 Beta Actin antibody (CL594-66009, Clone: 2D4H5) at dilution of 1:200.



1x10^6 HeLa cells were intracellularly stained with 0.8 ug CoraLite®594-conjugated Beta Actin Monoclonal antibody (CL594-66009, Clone:2D4H5) (red), or 0.8 ug CoraLite®594 Mouse IgG2b Isotype Control (MPC-11) (CL594-65128, Clone: MPC-11) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer.