



Beta Actin Monoclonal antibody

For Research Use Only

· Basic Information

Catalog Number:

U12002

Size:

300 µg/ml

Source:

Mouse

Isotype:

IgG2b

GenBank Accession**Number:**

NM_001101

GeneID (NCBI):

60

Full Name:

actin, beta

Calculated MW:

42 kDa

Observed MW:

42 kDa

Purification Method:

Protein A purification

CloneNo.:

2D4H5

Recommended Dilutions:

WB 1:5000-1:25000

IHC 1:20-1:500

IF 1:200-1:500

· Applications

Tested Applications:

FC, IF, IHC, WB, ELISA

Species Specificity:human, mouse, rat, hamster, monkey, dog, pig,
chicken, rabbit, zebrafish

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, A549 cells, Jurkat cells, HSC-T6 cells. NIH/3T3 cells, Pig brain, Rabbit brain, Rat brain, Mouse brain, Chicken brain, HEK-293 cells, HepG2 cells, K-562 cells, HHSC-T6 cells, 4T1 cells, CHO cells, mouse pancreas, rat pancreas

IHC : Human kidney tissue, human brain tissue, human colon cancer tissue, human heart tissue

IF : MDCK cells, 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. For murine tissue sample, conjugated antibody (HRP-66009) or rabbit antibody (20536-1-AP) is preferable.

· 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