HRP Conjugated Anti-beta Actin Antibody [A2-F6-R] - Loading control

HA601585H

Product Type:	Recombinant Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat, Pig, Monkey
Applications:	WB
Molecular Wt:	Predicted band size: 42 kDa
Clone number:	A2-F6-R

Description: Beta-actin (human gene and protein abbreviation ACTB/ACTB) is one of six different actin isoforms which have been identified in humans. This is one of the two nonmuscle cytoskeletal actins. Actins are highly conserved proteins that are involved in cell motility, structure and integrity. Alpha actins are a major constituent of the contractile apparatus. Beta-actin has been shown to interact with SPTBN2. In addition, RNA-binding protein Sam68 was found to interact with the mRNA encoding β-actin, which regulates the synaptic formation of the dendritic spines with its cytoskeletal components. Beta-actin has been shown to activate eNOS, thereby increasing NO production. An eight-amino acid residue (326-333) in actin has been shown to mediate the interaction between actin and eNOS. Recurrent mutations in this gene have been associated to cases of diffuse large B-cell lymphoma. Beta actin is often used in Western blotting as a loading control, to normalize total protein amounts and check for eventual protein degradation in the samples. Its transcript is also commonly used as a housekeeping gene standard in qPCR. Its molecular weight is approximately 42 kDa.

Conjugate: HRP-conjugated

Immunogen: Synthetic peptide within N-terminal human Beta-actin .

Positive control: Mouse brain tissue lysate, Mouse liver tissue lysate, Rat brain tissue lysate, Rat liver tissue lysate, Pig brain tissue lysate, HeLa cell lysate, HEK-293 cell lysate, NIH/3T3 cell lysate, RAW264.7 cell lysate, C6 cell lysate, PC-12 cell lysate, COS-1 cell lysate.

Subcellular location: Cytoplasm.

Database links: SwissProt: P60709 Human | P60710 Mouse | P60711 Rat

Recommended Dilutions:

WB	1:2,000-1:5,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

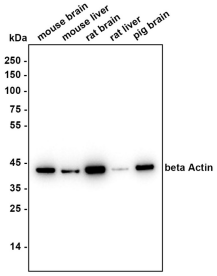

Fig1: Western blot analysis of beta Actin on different lysates with Mouse anti-beta Actin antibody (HA601585H) at 1/2,000 dilution.

Lane 1: Mouse brain tissue lysate
Lane 2: Mouse liver tissue lysate
Lane 3: Rat brain tissue lysate
Lane 4: Rat liver tissue lysate
Lane 4: Pig brain tissue lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 42 kDa
Observed band size: 42 kDa

Exposure time: 34 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA601585H, HRP) at 1/2,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight.

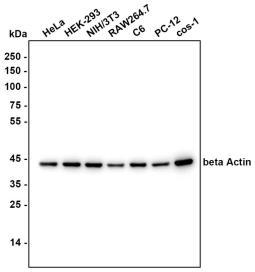

Fig2: Western blot analysis of beta Actin on different lysates with Mouse anti-beta Actin antibody (HA601585H) at 1/5,000 dilution.

Lane 1: HeLa cell lysate
Lane 2: HEK-293 cell lysate
Lane 3: NIH/3T3 cell lysate
Lane 4: RAW264.7 cell lysate
Lane 5: C6 cell lysate
Lane 6: PC-12 cell lysate
Lane 7: COS-1 cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 42 kDa
Observed band size: 42 kDa

Exposure time: 14 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA601585H, HRP) at 1/5,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight.

Background References

1. Fujiki R et al. GlcNAcylation of a histone methyltransferase in retinoic-acid-induced granulopoiesis. Nature 459:455-459 (2009).