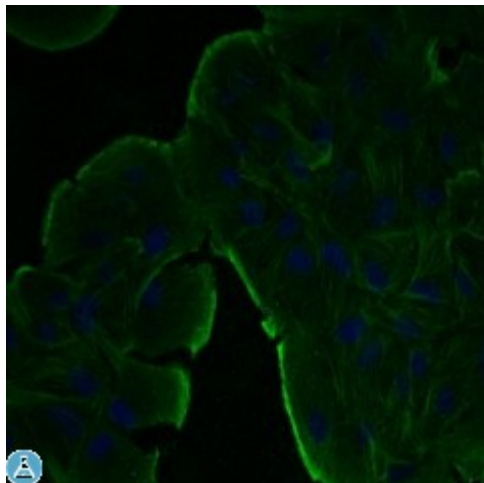


Anti-beta-Actin antibody



Description	Actin proteins are highly conserved and ubiquitously expressed in all eukaryotic cells. These proteins are the major components of the cytoskeleton and involved in various types of cell motility.
Model	STJ140081
Host	Goat
Reactivity	Avian, Bovine, Canine, Donkey, Feline, Goat, Guinea Pig, Hamster, Horse, Human, Mouse, Other, Porcine, Rabbit, Rat, Sheep, Simian
Applications	IF, WB
Immunogen	Recombinant peptide derived from within residues 100 aa to the N-terminus of human beta-Actin produced in E. coli.
Immunogen Region	N-Term
Gene ID	60
Gene Symbol	ACTB
Dilution range	Western blot 1:250-1:2,000Immunofluorescence 1-50-1:250Immunohistochemistry (paraffin) NDImmunohistochemistry (frozen) ND
Specificity	Detects a band of approximately 42 kDa by Western blot in the following human (293A, primary fibroblasts, HaCat, HeLa, HMEC-1, Jurkat, MNT1, U-118, rat (TR-iBRB), mouse (3T3, AtT-20, Hepa, Raw264.7), monkey (COS-7) and canine (D17) whole cell lysates.
Purification	This antibody is epitope-affinity purified from goat antiserum.
Note	For research use only (RUO).

Protein Name	Actin, cytoplasmic 1 (Beta-actin) [Cleaved into: Actin, cytoplasmic 1, N-terminally processed]
Molecular Weight	42 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS, 20% glycerol and 0.05% sodium azide.
Concentration	3 mg/mL
Storage Instruction	Store at -20°, and avoid repeated freeze-thaw cycles.
Database Links	HGNC:132OMIM:102630
Alternative Names	Actin, cytoplasmic 1 (Beta-actin) [Cleaved into: Actin, cytoplasmic 1, N-terminally processed]
Function	Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.
Cellular Localization	Cytoplasm, cytoskeleton. Localized in cytoplasmic mRNP granules containing untranslated mRNAs.
Post-translational Modifications	ISGylated. Oxidation of Met-44 and Met-47 by MICALs (MICAL1, MICAL2 or MICAL3) to form methionine sulfoxide promotes actin filament depolymerization. MICAL1 and MICAL2 produce the (R)-S-oxide form. The (R)-S-oxide form is reverted by MSRB1 and MSRB2, which promote actin repolymerization . Monomethylation at Lys-84 (K84me1) regulates actin-myosin interaction and actomyosin-dependent processes. Demethylation by ALKBH4 is required for maintaining actomyosin dynamics supporting normal cleavage furrow ingression during cytokinesis and cell migration. (Microbial infection) Monomeric actin is cross-linked by V.cholerae toxins RtxA and VgrG1 in case of infection: bacterial toxins mediate the cross-link between Lys-50 of one monomer and Glu-270 of another actin monomer, resulting in formation of highly toxic actin oligomers that cause cell rounding . The toxin can be highly efficient at very low concentrations by acting on formin homology family proteins: toxic actin oligomers bind with high affinity to formins and adversely affect both nucleation and elongation abilities of formins, causing their potent inhibition in both profilin-dependent and independent manners .