

β-Actin

Cat.No. 251 006; Polyclonal chicken antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg purified IgY, lyophilized. Ovalbumin was added for stabilization. For reconstitution add 50 µl H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use. Before storing at -20°C add 1 vol of glycerol.
Applications	WB: 1 : 1000 up to 1 : 2000 AP staining IP: not tested yet ICC: 1 : 500 up to 1 : 1000 IHC: 1 : 500 up to 1 : 1000 IHC-P/FFPE: not tested yet
Immunogen	Synthetic peptide corresponding to AA 2 to 16 from mouse β-Actin (UniProt Id: P60710)
Reactivity	Reacts with: rat (P60711), mouse (P60710), human (P60709), grasshopper, zebrafish, C. elegans. Other species not tested yet.
Specificity	May cross-react to α- and γ-actin due to sequence homology.

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

The two major cytoskeletal proteins involved in cell motility are myosin and **actin**. Monomeric actin is a globular protein that is expressed in all eukaryotic cells. Actin is the major subunit of microfilaments, a major component of the cytoskeleton, and of thin filaments, part of the contractile apparatus in muscle cells.

Actin is involved in many cellular processes including cell motility, maintenance of cell shape, and organelle trafficking.

Three main groups of actin have been identified. α-actins are found in muscle tissues whereas β- and γ-actins co-exist in most cell types as components of the cytoskeleton.

Selected General References

Sorting of beta-actin mRNA and protein to neurites and growth cones in culture.
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Regulation of the human beta-actin promoter by upstream and intron domains.
Ng SY, Gunning P, Liu SH, Leavitt J, Keddes L
Nucleic acids research (1989) 17(2): 601-15.

The nucleotide sequence of the rat cytoplasmic beta-actin gene.
Nudel U, Zakut R, Shani M, Neuman S, Levy Z, Yaffe D
Nucleic acids research (1983) 11(6): 1759-71.

The genes coding for the cardiac muscle actin, the skeletal muscle actin and the cytoplasmic beta-actin are located on three different mouse chromosomes.

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