

## Product datasheet for **AP09293PU-N**

### beta Actin (ACTB) (359-368) (Loading Control) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IF, IHC, WB
Recommended Dilution:	This affinity-purified antibody has been tested for use in ELISA, immunohistochemistry and western blot. <u>Recommended Dilutions:</u> ELISA: 1/10,000-1/40,000. Western Blot: 1/1,000-1/4,000. Immunofluorescence: 1/500-1/2,000.
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Synthetic peptide corresponding to amino acids 359-368 of Human beta Actin
Specificity:	This antibody is directed against beta Actin protein. Beta actin present in fibroblast connective tissue stains very brightly. Beta actin present in neuromuscular junctions also stains. Paraformaldehyde fixation yields brighter staining than formalin or methanol fixation. Expect a band at ~42 kDa in size corresponding to beta actin by western blotting in the appropriate cell lysate or extract.
Formulation:	0.02M Potassium Phosphate, 0.15M Sodium Chloride, pH 7.2 containing 0.01% (w/v) Sodium Azide. State: Aff - Purified State: Liquid (sterile filtered) purified Ig fraction.
Concentration:	lot specific
Purification:	Affinity Chromatography.
Conjugation:	Unconjugated
Storage:	Store the antibody at -20°C. Dilute only prior to immediate use. Avoid repeated freezing and thawing.



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**Stability:** Shelf life: one year from despatch.

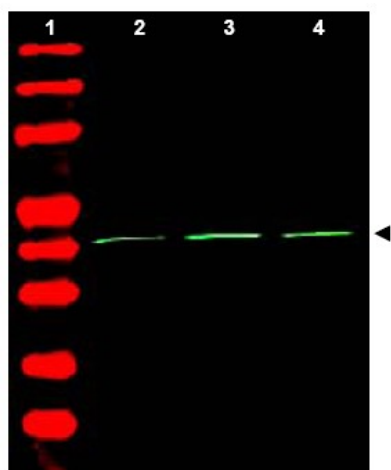
**Gene Name:** actin, beta

**Database Link:** [Entrez Gene 60 Human P60709](#)

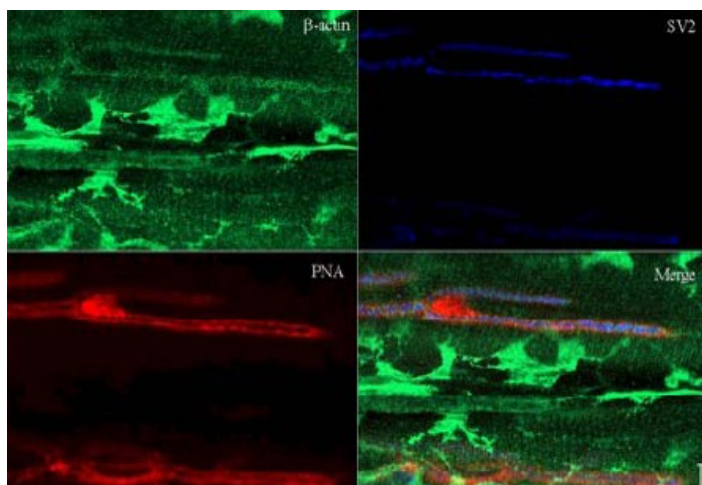
**Background:** In vertebrates 3 main groups of actin isoforms, alpha, beta and gamma have been identified. The alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. The beta and gamma actins coexist in most cell types as components of the cytoskeleton and as mediators of internal cell motility. Beta actins are highly conserved proteins that are involved in cell motility, structure and integrity. Beta actins are cytoplasmic proteins ubiquitously expressed in all eukaryotic cells. Polymerization of globular actin (G-actin) leads to a structural filament (F-actin) in the form of a two-stranded helix. Each actin can bind to 4 others. This antibody serves as an excellent loading control.

**Synonyms:** Actin cytoplasmic 1, Beta-Actin

### Product images:



Western blot using Affinity Purified anti-beta Actin antibody shows detection of a predominant band at ~42 kDa corresponding to beta Actin (arrowhead) in various whole cell lysates. Lysates are as follows: human embryonic kidney 293 (lane 2), human lung carcinoma A549 (lane 3) and mouse brain (lane 4) all using the 800 nm channel (green). ~ 35 ug of each lysate was separated on a 4-20% Tris-glycine gel by SDS-PAGE and transferred onto nitrocellulose. After blocking the membrane was probed with the primary antibody diluted to 1:1, 500. Incubation was overnight at 4°C followed by washes and reaction with a 1:10,000 dilution of IRDye (TM)800 conjugated Gt-a-Rabbit IgG [H&L] MX for 45 min at room temperature. Molecular weight markers are shown in lane 1 using the 700 nm channel (red). IRDye (TM)800 fluorescence image was captured using the Odyssey (R) Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.



Immunohistochemical staining. Affinity Purified anti-beta Actin antibody at 1:200 is shown to detect actin at the neuromuscular junction of *Rana pipiens* tissue (sections 4.2 μm thick).