

**Anti-beta Actin (RABBIT) Antibody Biotin Conjugated**  
**Beta Actin Antibody Biotin Conjugated**  
**Catalog # ASR5870****Specification**

---

**Anti-beta Actin (RABBIT) Antibody Biotin Conjugated - Product Information**

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                  | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Conjugate             | Biotin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| FP Value              | 10-20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Target Species        | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Reactivity            | Rat, Pig, Human, Mouse, Hamster, Monkey, Goat, Bovine, Guinea Pig, Sheep                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Clonality             | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Application           | WB, IHC, E, I, LCI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Application Note      | This affinity-purified antibody has been tested for use in ELISA and is suitable for immunohistochemistry and western blot. Specific conditions for reactivity should be optimized by the end user. 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. |
| Physical State        | Lyophilized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Buffer                | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Immunogen             | beta-Actin Loading Control Antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a C-Terminal region near amino acids 350-375 of Human beta Actin.                                                                                                                                                                                                                                                                                                                                    |
| Reconstitution Volume | 100 µL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Reconstitution Buffer | Restore with deionized water (or equivalent)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Stabilizer            | 10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Preservative          | 0.01% (w/v) Sodium Azide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

**Anti-beta Actin (RABBIT) Antibody Biotin Conjugated - Additional Information****Gene ID 60****Other Names**  
60

**Purity**

This affinity-purified antibody is directed against human beta Actin protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest that this antibody would react with beta Actin from a wide range of organisms, including most vertebrates and some yeast. Broad reactivity makes this antibody an excellent loading control.

**Storage Condition**

Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

**Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.

**Anti-beta Actin (RABBIT) Antibody Biotin Conjugated - Protein Information**

**Name** ACTB

**Function**

Actin is a highly conserved protein that polymerizes to produce filaments that form cross-linked networks in the cytoplasm of cells (PubMed: <a href="http://www.uniprot.org/citations/25255767" target="\_blank">25255767</a>, PubMed: <a href="http://www.uniprot.org/citations/29581253" target="\_blank">29581253</a>). Actin exists in both monomeric (G-actin) and polymeric (F-actin) forms, both forms playing key functions, such as cell motility and contraction (PubMed: <a href="http://www.uniprot.org/citations/29581253" target="\_blank">29581253</a>). In addition to their role in the cytoplasmic cytoskeleton, G- and F- actin also localize in the nucleus, and regulate gene transcription and motility and repair of damaged DNA (PubMed: <a href="http://www.uniprot.org/citations/29925947" target="\_blank">29925947</a>). Plays a role in the assembly of the gamma-tubulin ring complex (gTuRC), which regulates the minus-end nucleation of alpha-beta tubulin heterodimers that grow into microtubule protofilaments (PubMed: <a href="http://www.uniprot.org/citations/39321809" target="\_blank">39321809</a>, PubMed: <a href="http://www.uniprot.org/citations/38609661" target="\_blank">38609661</a>). Part of the ACTR1A/ACTB filament around which the dynactin complex is built (By similarity). The dynactin multiprotein complex activates the molecular motor dynein for ultra-processive transport along microtubules (By similarity).

**Cellular Location**

Cytoplasm, cytoskeleton. Nucleus Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs.

**Anti-beta Actin (RABBIT) Antibody Biotin Conjugated - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)

- [Cell Culture](#)

### **Anti-beta Actin (RABBIT) Antibody Biotin Conjugated - Images**

### **Anti-beta Actin (RABBIT) Antibody Biotin Conjugated - 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 cyto-skeleton 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. Anti-Actin is a loading control antibody and is critical for the correct interpretation of your western blot. Beta-Actin Biotin Conjugate Antibody is used to normalize the levels of protein detected by confirming that protein loading is uniform across the gel.