

Anti- β -Actin Antibody
Catalog # AN1616**Specification**

Anti- β -Actin Antibody - Product Information

| | |
|-------------------|-------------------------|
| Application | WB, IHC |
| Primary Accession | P60709 |
| Host | Mouse |
| Clonality | Mouse Monoclonal |
| Isotype | IgG2b |
| Calculated MW | 41737 |

Anti- β -Actin Antibody - Additional Information

| | |
|----------------------------|-----------|
| Gene ID | 60 |
| Other Names | |
| Actin, b-actin, beta actin | |

Target/Specificity

Actin is a major cytoskeletal protein involved in diverse cellular functions including cell motility, adhesion, and morphology. Six different actin isoforms have been identified in vertebrates. There are four α isoforms: skeletal, cardiac, and two smooth muscle (enteric and aortic) actins, along with two cytoplasmic actins (β and γ). Actin exists in two principal forms, globular, monomeric (G) actin, and filamentous polymeric (F) actin. The assembly and disassembly of actin filaments, and also their organization into functional networks, is regulated by a variety of actin-binding proteins (ABPs). Phosphorylation may also be important for regulating actin assembly and interaction with ABPs. In Dictyostelium, phosphorylation of Tyr-53 occurs in response to cell stress and this phosphorylation may alter actin polymerization. In B cells, SHP-1 tyrosine dephosphorylation of actin leads to actin filament depolymerization following BCR stimulation

Format

Protein G Purified

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Anti- β -Actin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

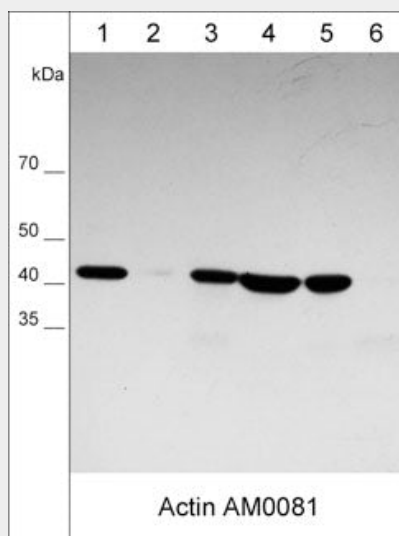
Blue Ice

Anti- β -Actin Antibody - Protocols

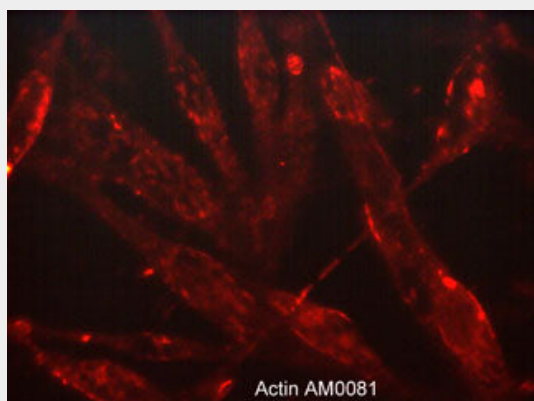
Provided below are standard protocols that you may find useful for product applications.

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

Anti- β -Actin Antibody - Images



Western blot analysis of human HUVEC-CS (lane 1), rabbit spleen fibroblast (lane 2), human Jurkat (lane 3), human LNCaP (lane 4), human HeLa (lane 5), and mouse F9 (lane 6) cell lysates. The blot was probed with mouse monoclonal anti- β -Actin (AM0081) at 1:1000 (lanes 1-6).



Immunocytochemical labeling of β -Actin in paraformaldehyde fixed human MeWo cells. The cells were labeled with mouse monoclonal anti- β -Actin (clone M008). The antibody was detected using goat anti-mouse DyLight® 594.

Anti- β -Actin Antibody - Background

Actin is a major cytoskeletal protein involved in diverse cellular functions including cell motility, adhesion, and morphology. Six different actin isoforms have been identified in vertebrates. There are four α isoforms: skeletal, cardiac, and two smooth muscle (enteric and aortic) actins, along with two cytoplasmic actins (β and γ). Actin exists in two principal forms, globular, monomeric (G) actin, and filamentous polymeric (F) actin. The assembly and disassembly of actin filaments, and also

their organization into functional networks, is regulated by a variety of actin-binding proteins (ABPs). Phosphorylation may also be important for regulating actin assembly and interaction with ABPs. In Dictyostelium, phosphorylation of Tyr-53 occurs in response to cell stress and this phosphorylation may alter actin polymerization. In B cells, SHP-1 tyrosine dephosphorylation of actin leads to actin filament depolymerization following BCR stimulation