

## Anti-β-Actin Antibody

Catalog # AN1616

## **Product Information**

Application WB, ICC, IP
Primary Accession P60709
Host Mouse

**Clonality** Mouse Monoclonal

IsotypeIgG2bClone NamesM008Calculated MW41737

## **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  $\alpha$  isoforms: skeletal, cardiac, and two smooth muscle (enteric and aortic) actins, along with two cytoplasmic actins ( $\beta$  and  $\gamma$ ). 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

**Dilution** WB~~1:1000 ICC~~N/A IP~~N/A

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

## **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  $\alpha$  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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.