ARG62346
anti-beta Actin antibody [BA3R]

Summary

Product Description
Mouse Monoclonal antibody [BA3R] recognizes beta Actin

Tested Reactivity
Hu, Ms, Rat, Chk, Rb

Tested Application
ELISA, FACS, ICC/IF, IP, WB

Specificity
Recognizes native and denatured forms of β-Actin (around 42 kDa)

Host
Mouse

Clonality
Monoclonal

Clone
BA3R

Isotype
IgG2b

Target Name
beta Actin

Immunogen
β-Actin N-terminal peptide-KLH conjugates.

Conjugation
Un-conjugated

Alternate Names
PS1TP5BP1; BRWS1; Actin, cytoplasmic 1; Beta-actin

Application Instructions

Application table

<table>
<thead>
<tr>
<th>Application</th>
<th>Dilution</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELISA</td>
<td>Assay-dependent</td>
</tr>
<tr>
<td>FACS</td>
<td>0.1-1 µg for 10^6 cells.</td>
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<tr>
<td>ICC/IF</td>
<td>1:500 - 1:2000</td>
</tr>
<tr>
<td>IP</td>
<td>5 µg/ml</td>
</tr>
<tr>
<td>WB</td>
<td>1:1000 - 1:10000</td>
</tr>
</tbody>
</table>

Application Note
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Positive Control
mouse brain tissue

Calculated Mw
42 kDa

Properties

Form
Liquid

Purification
Protein A affinity purified.

Purification Note
Protein A affinity chromatography from mouse ascites fluid.

Buffer
10mM PBS (pH 7.2) and 0.05% Sodium azide

Preservative
0.05% Sodium azide
Concentration 1 mg/ml
Storage instruction For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation
Gene Full Name actin, beta
Background Actin is a ubiquitous globular protein that is one of the most highly-conserved proteins known. It is found in two main states; G-actin is the globular monomeric form, whereas F-actin forms helical polymers. Both G- and F-actin are intrinsically flexible structures - a feature vital in actin’s role as a dynamic filament network. Actin has four major functions. Firstly, F-actin polymers form microfilaments - polar intracellular ‘tracks’ for kinesin motor proteins, allowing the transport of vesicles, organelles and other cargo. Actin is a component of the cytoskeleton and links to alpha-actinin, E-cadherin and beta-catenin at adherens junctions. This gives mechanical support to cells and attaches them to each other and the extracellular matrix. In muscle cells, actin-rich thin filaments associate with myosin-rich thick filaments to form actomyosin myofibrils. Using energy from the hydrolysis of ATP, myofibrils undergo cyclic shortening through actin-myosin head interactions, which represents the mechanics of muscle contraction. Finally, actin has a role in cell motility through polymerization and depolymerization of fibrils.[Provided from GeneCard and TOCRIS]

Highlight Related products: beta Actin antibodies; beta Actin Duos / Panels; Anti-Mouse IgG secondary antibodies.

Research Area Controls and Markers antibody; Signaling Transduction antibody

Cellular Localization Cytoplasm, cytoskeleton

Images
ARG62346 anti-beta Actin antibody [BA3R] ICC/IF image
Immunofluorescence: 100% Methanol fixed (RT, 10 min) HeLa cells stained with ARG62346 anti-beta Actin antibody [BA3R] at 1:500 dilution. Left: primary antibody (green). Right: Merge (primary antibody and DAPI).
Secondary antibody: ARG55393 Goat anti-Mouse IgG (H+L) antibody (FITC)

ARG62346 anti-beta Actin antibody [BA3R] WB image
Western blot: MCF-7, A549, H1299, HCT116, HepG2 and HUVEC cell lysates stained with ARG62346 anti-beta Actin antibody [BA3R] at 1:1000 dilution.
ARG62346 anti-beta Actin antibody [BA3R] WB image

Western blot: Rat brain, Rat heart, Rat kidney, Rat stomach and Rat ovary lysates stained with ARG62346 anti-beta Actin antibody [BA3R] at 1:1000 dilution.

ARG62346 anti-beta Actin antibody [BA3R] WB image

Western blot: 20 µg of HeLa, Mouse brain and Rat brain lysates stained with ARG62346 anti-beta Actin antibody [BA3R] at 1:10000 dilution.