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Datasheet for ABIN1043747

anti-beta Actin antibody (N-Term)

3 Images

1 Publication

Overview

Quantity:	100 µg
Target:	beta Actin (ACTB)
Binding Specificity:	N-Term
Reactivity:	Human, Mouse, Rat, Rabbit, Pig
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This beta Actin antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

Immunogen:	Anti-beta Actin (MOUSE) Monoclonal Antibody was produced in mouse by repeated immunizations with β -Actin peptide near the N-Terminus followed by hybridoma development. Immunogen Type: Peptide
Clone:	3H2-E4-E12
Isotype:	IgG2a lambda
Specificity:	Anti-beta Actin was purified from mouse ascites by Protein A chromatography followed by extensive dialysis against the buffer stated above. beta Actin antibody is specific for human and mouse β Actin protein. Expected to cross-react with a wide range of species due to sequence homology. A BLAST analysis was used to suggest that this antibody would react with beta Actin from a wide range of organisms, including most vertebrates. Cross-reactivity with other sources has not been determined.

Product Details

Characteristics:	<p>Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells. 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. Antibodies to loading controls are used to normalize the levels of protein detected by confirming that protein loading is uniform across the gel.</p>
Sterility:	Sterile filtered

Target Details

Target:	beta Actin (ACTB)
Alternative Name:	beta Actin (ACTB Products)
Background:	<p>Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells. 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. Antibodies to loading controls are used to normalize the levels of protein detected by confirming that protein loading is uniform across the gel.</p> <p>Synonyms: Actin Antibody, Loading Control Antibody, beta actin, β actin, anti-beta actin antibody</p>
Gene ID:	11461
NCBI Accession:	NP_031419
UniProt:	P60710
Pathways:	Myometrial Relaxation and Contraction , Cell-Cell Junction Organization , Maintenance of Protein Location , Phototransduction

Application Details

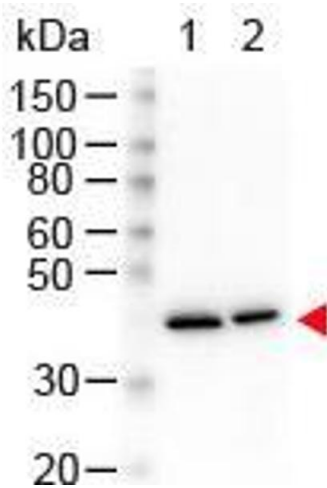
Application Notes:	Anti-beta Actin antibody has been tested for use in ELISA and Western Blot. Specific conditions for reactivity should be optimized by the end user.
Comment:	Gene Name: Actb
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1.0 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C/-20 °C
Storage Comment:	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. Expiration date is one (1) year from date of opening.
Expiry Date:	12 months

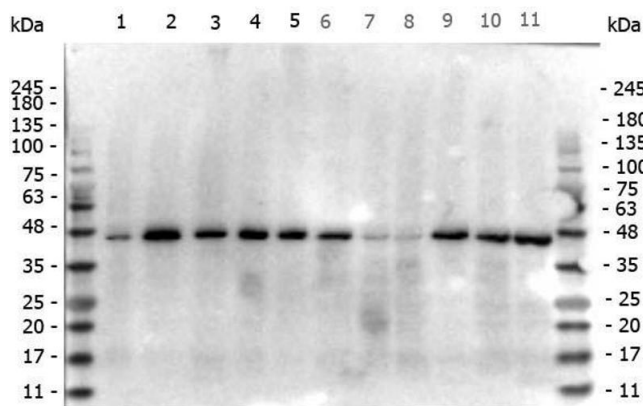
Publications

Product cited in:	Baek, Eling: "Changes in gene expression contribute to cancer prevention by COX inhibitors." in: Progress in lipid research , Vol. 45, Issue 1, pp. 1-16, (2006) (PubMed).
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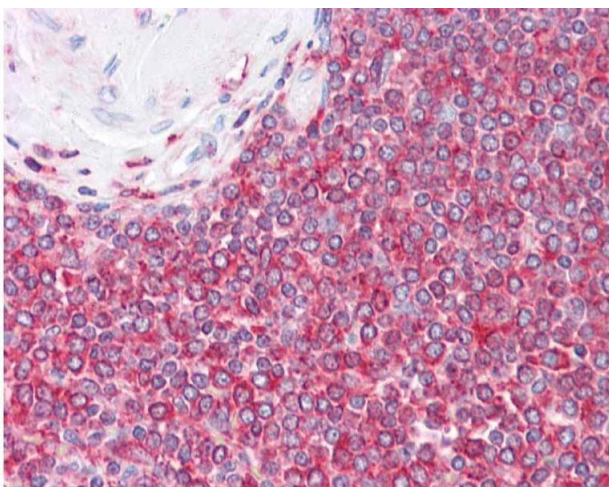
Western Blotting

Image 1. Western Blot of Mouse anti-N-Term Beta Actin Monoclonal Antibody. Lane 1: HeLa Whole Cell Lysate. Lane 2: NIH/3T3 Whole Cell Lysate. Load: 10 µg per lane. Primary antibody: N-Term Beta Actin Monoclonal Antibody at 1.13 ug/mL overnight at 4°C. Secondary antibody: HRP mouse secondary antibody at 1:40,000 for 30 min at RT. Block: ABIN925618 for 30 min at RT. Predicted/Observed size: 42 kDa, 42 kDa for N-Term Beta Actin. Other band(s): None.



Western Blotting

Image 2. Western Blot of Mouse anti-beta Actin antibody. Marker: Opal Pre-stained ladder . Lane 1: HEK293 lysate . Lane 2: HeLa Lysate . Lane 3: MCF-7 Lysate . Lane 4: Jurkat Lysate . Lane 5: A431 Lysate . Lane 6: A549 Lysate . Lane 7: LNCap Lysate . Lane 8: MOLT-4 Lysate . Lane 9: Raji Lysate . Lane 10: Ramos Lysate . Lane 11: PC-12 Load: 10 µg per lane. Primary antibody: beta-Actin antibody at 1:1,000 o/n at 4C. Secondary antibody: Peroxidase mouse secondary at 1:40,000 for 60 min at RT. Blocking Buffer: 1% Casein-TTBS for 30 min at RT. Predicted/Observed size: 42 kDa for beta-Actin.



Immunohistochemistry

Image 3. Immunohistochemistry of Mouse anti-Beta Actin N-Term antibody. Tissue: human spleen. Fixation: formalin fixed paraffin archival tissues. Antigen retrieval: not required. Primary antibody: Beta Actin N-Term antibody at 2.5 µg/mL for 1 h at RT. Secondary antibody: Peroxidase goat anti-rabbit at 1:10,000 for 45 min at RT. Localization: membranous and cytoplasmic. Staining: antibody as precipitated red signal with a hematoxylin purple nuclear counterstain.