Datasheet for ABIN968902

anti-Actin antibody

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Overview

Quantity:	50 µg
Target:	Actin
Reactivity:	Human, Rat, Mouse, Chicken, Dog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Actin antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Chicken gizzard muscle Actin
Clone:	C4-actin
Isotype:	IgG1 kappa
Cross-Reactivity:	Human, Dog (Canine), Rat (Rattus), Mouse (Murine)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	Actin
Abstract:	Actin Products
Background:	Changes in cellular morphology, adhesion, and motility occur through the reorganization of the actin cytoskeleton. This reorganization of actin filaments results from interactions between actin and actin-binding proteins. Actin is a 42-kDa protein that is known as G-actin in its monomeric form. Polymerization of G-actin monomers leads to the generation of flexible filaments, 5-9 nm in diameter, called F-actin. F-actin may be organized in linear bundles called stress fibers or in two-dimensional networks. The latter are highly concentrated beneath the plasma membrane and form the actin cortex. Regulation of actin cytoskeletal dynamics occurs through actin-binding proteins. These proteins bind to G- and/or F-actin and regulate various aspects of actin cytoskeletal dynamics, such as polymerization and depolymerization of actin, cross-linking of actin filaments into bundles, interaction of actin-based structures with membranes and other cytoskeletal elements, and locomotion of actin-based structures. Thus, the actin cytoskeleton is a complex matrix consisting of G- and F-actin along with the multitude of interactions between these actin forms and a variety of different types of actin-binding proteins. The C4 monoclonal antibody reacts with all known isoforms of actin in vertebrate muscle and non-muscle cells.
Molecular Weight:	42 kDa

Application Details

Comment:	Related Products: ABIN968537, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
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:	-20 °C

Handling

Storage Comment:	Store undiluted at -20° C.

Publications

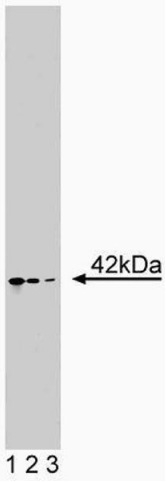
Product cited in:

Pantaloni, Le Clainche, Carlier: "Mechanism of actin-based motility." in: **Science (New York, N.Y.)**, Vol. 292, Issue 5521, pp. 1502-6, (2001) (PubMed).

Mitchison, Cramer: "Actin-based cell motility and cell locomotion." in: **Cell**, Vol. 84, Issue 3, pp. 371-9, (1996) (PubMed).

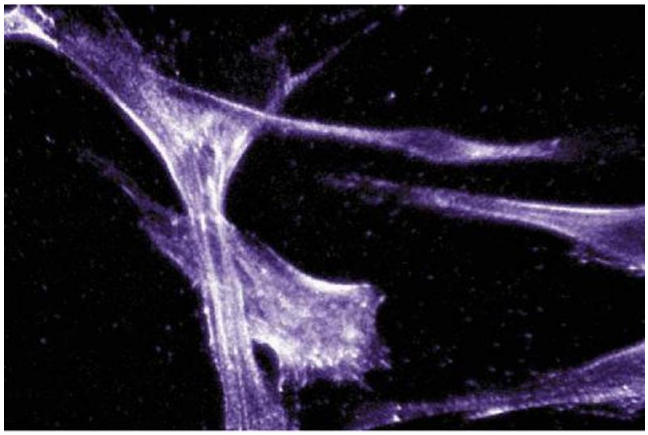
Hanstein, Lange, Schneider-Poetsch, Grolig, Wagner: "Detection of actin and localization of phytochrome in the green alga Mougeotia by monoclonal antibodies." in: **Acta histochemica. Supplementband**, Vol. 41, Issue 9, pp. 223-30, (1992) (PubMed).

Images



Western Blotting

Image 1. Western blot analysis of Actin Ab-5 on Jurkat cell lysate. Lane 1: 1:5000, lane 2: 1:10000, lane 3: 1:20000 dilution of anti-Actin Ab-5.



Immunofluorescence

Image 2. Immunofluorescent staining of Hs68 cells with anti-Actin Ab-5.