

Monoclonal anti-human ACTA2 antibody (clone AT132D3)

Mouse IgG₁, κ

Cat. No. IBATGA0358

Immunogen: Recombinant human ACTA2 (3-377aa) purified from *E.coli*.

NCBI Accession No.: NP_001604

Isotype: Mouse IgG₁ heavy chain and κ light chain

Clone: Anti-human ACTA2 mAb, clone AT132D3, is derived from hybridization of mouse F0 myeloma cells with spleen cells from BALB/c mice immunized with a recombinant human ACTA2 protein.

Description: Alpha-actin-2 also known as actin, aortic smooth muscle or alpha smooth muscle actin (α -SMA, SMactin, alpha-SM-actin, ASMA). Actin proteins are major components of the eukaryotic cytoskeleton. At least six vertebrate actin isoforms have been identified. The cytoplasmic β - and γ -actin proteins are referred to as "non-muscle" actin proteins as they are predominantly expressed in non-muscle cells where they control cell structure and motility. Actin has 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. actin has a role in cell motility through polymerization and depolymerization of fibrils.

Concentration: 1 mg/ml

Form: Liquid. In Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% Glycerol

Storage: Can be stored at +4C. For long term storage, aliquot and store at -20C. Avoid repeated freezing and thawing cycles.

Usage: The antibody has been tested by ELISA, Western blot analysis, Flow cytometry and ICC/IF to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

Application: ELISA, WB, Flow cytometry, ICC/IF

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.



Manufactured for:

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Product information

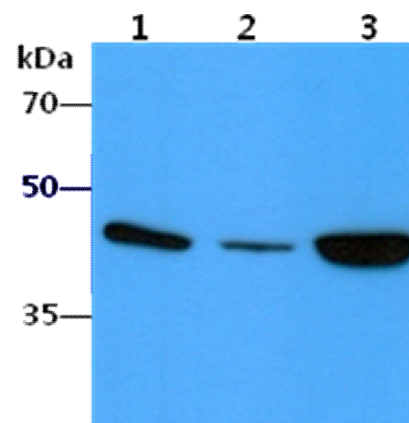
Western blot analysis

The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human ACTA2 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1.: HepG2 cell lysate

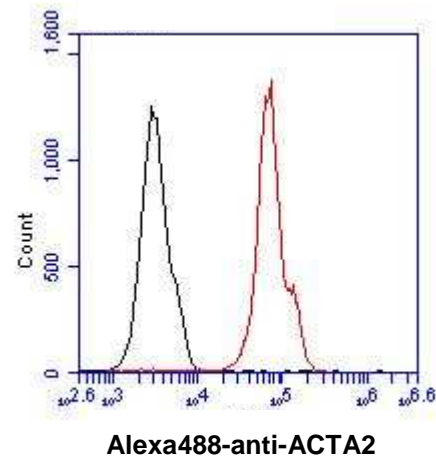
Lane 2.: SW480 cell lysate

Lane 3.: HeLa cell lysate



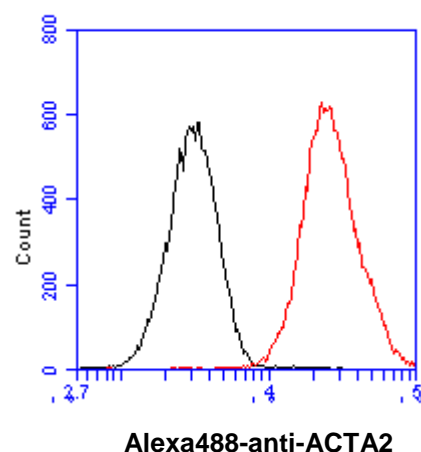
Flow cytometry

Flow cytometry analysis of ACTA2 in Nb2-11 cell line, staining at 2-5ug for 1×10^6 cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).



Flow cytometry

Flow cytometry analysis of ACTA2 in HeLa cell line, staining at 2-5ug for 1×10^6 cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).

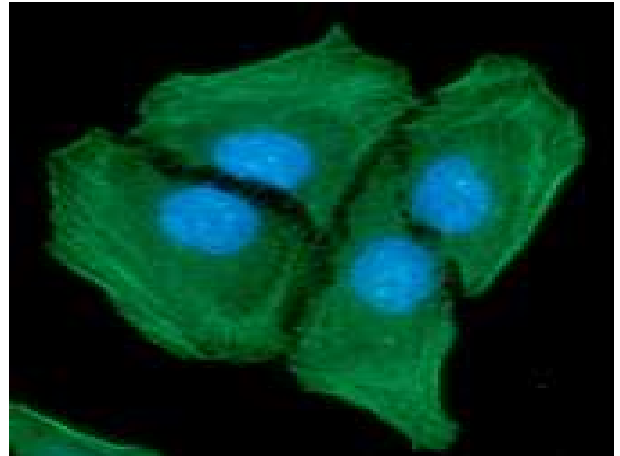


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ICC/IF analysis

ICC/IF analysis of ACTA2 in HeLa cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human ACTA2 antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



General references: Herman IM. *et al.* (1993) *Curr Opin Cell Biol.* **5(1)**: 48-55.
Guo DC., *et al.* (2009) *Am J Hum Genet.* **84(5)**: 617-627.

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