# ACTA1 Recombinant Monoclonal Antibody

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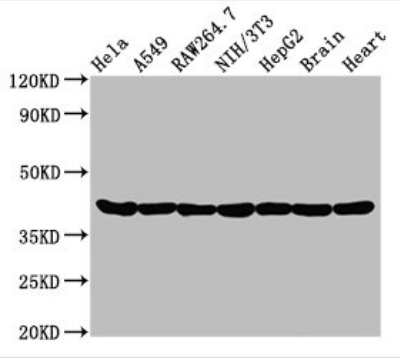
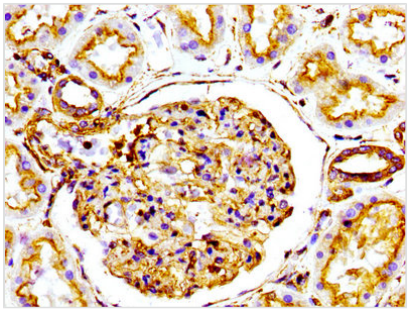
| **Product Code** | CSB-RA001205A0HU |
| **Abbreviation** | Actin, alpha skeletal muscle |
| **Storage** | Upon receipt, store at -20°C or -80°C. Avoid repeated freeze. |
| **Uniprot No.** | P68133 |
| **Immunogen** | A synthesized peptide |
| **Species Reactivity** | Human, Mouse, Rat |
| **Tested Applications** | ELISA, WB, IHC, IF, FC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:500, IF:1:30-1:200 |
| **Relevance** | Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells. |
| **Form** | Liquid |
| **Conjugate** | Non-conjugated |
| **Storage Buffer** | Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. |
| **Purification Method** | Affinity-chromatography |
| **Isotype** | Rabbit IgG |
| **Clonality** | Monoclonal |
| **Product Type** | Recombinant Antibody |
| **Immunogen Species** | Homo sapiens (Human) |
| **Research Area** | Tags & Cell Markers |
| **Gene Names** | ACTA1 |
| **Clone No.** | 25E3 |

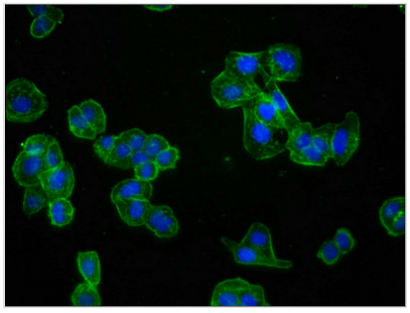
**Image**



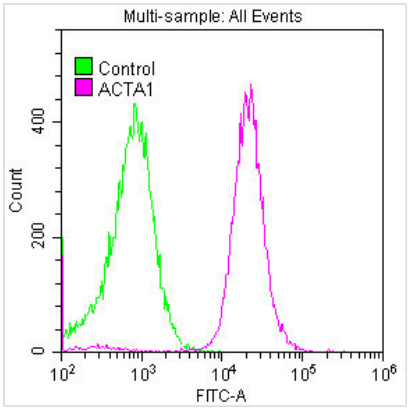

Western Blot
Positive WB detected in: Hela whole cell lysate, A549 whole cell lysate, Raw264.7 whole cell lysate, NIH/3T3 whole cell lysate, HepG2 whole cell lysate, Rat brain tissue, Rat heart tissue
All lanes: Actin antibody at 0.95µg/ml
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 42 KDa
Observed band size: 42 KDa



IHC image of CSB-RA001205A0HU diluted at 1:100 and staining in paraffin-embedded human kidney tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4? overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.



Immunofluorescence staining of HepG2 cells with CSB-RA001205A0HU at 1:60,counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeabilized using 0.2% Triton X-100 and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4?.The secondary antibody was Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit IgG (H+L).




Overlay histogram showing Hela cells stained with CSB-RA001205A0HU (red line) at 1:50. The cells were fixed with 70% Ethylalcohol (18h) and then permeabilized with 0.3% Triton X-100 for 2 min. The cells were then incubated in 1x PBS /10% normal goat serum to block non-specific protein-protein interactions followed by primary antibody for 1 h at 4?. The secondary antibody used was FITC goat anti-rabbit IgG (H+L) at 1/200 dilution for 1 h at 4?. Control antibody (green line) was used under the same conditions. Acquisition of >10,000 events was performed.

## Description

CUSABIO generated the ACTA1 antibody through a multi-step process. Initially, an animal is immunized with a synthesized peptide derived from human ACTA1. B cells are isolated from the immunized animal. Selecting the ACTA1 antibody-producing B cells and identifying the single clones. The resulting ACTA1 antibody is then sequenced, and its corresponding antibody gene is synthesized. CUSABIO subsequently clones the ACTA1 antibody gene into plasma vectors, which are subsequently introduced into mammalian cells using a lipid-based transfection reagent. Following transient expression, the antibodies against ACTA1 are harvested and thoroughly characterized. The ACTA1 recombinant monoclonal antibody is purified using affinity chromatography from the culture medium. This highly purified antibody is specifically designed for the detection of human, mouse, and rat ACTA1 protein in ELISA, WB, IHC, IF, and FC applications.