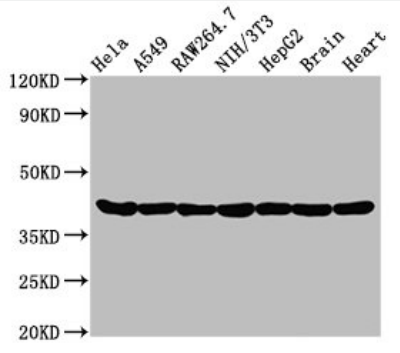
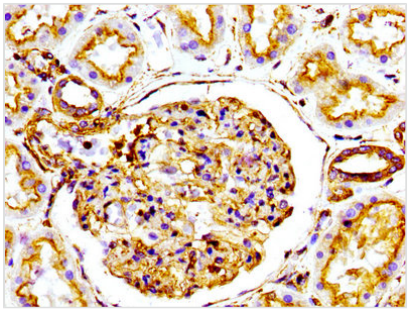
ACTA1 Antibody

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
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
Accession NO.	25E3

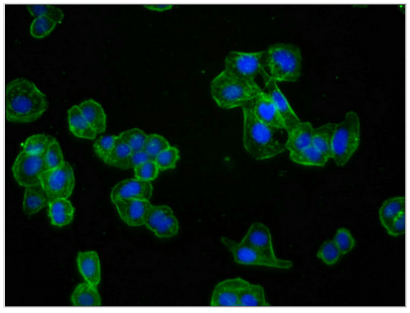
Image



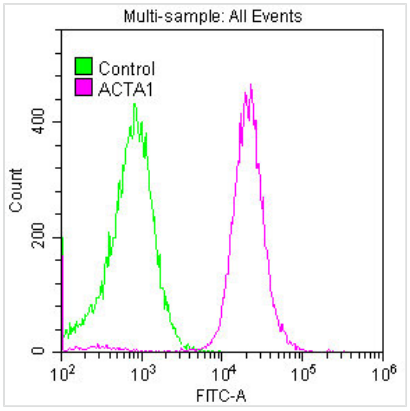
Western Blot
Positive WB detected in: Hela whole cell lysate, A549 whole cell lysate, Raw264.7 whole cell lysate, NIH/3T3 whole cell lysate, HepG2 whole cell lysate, Rat brain tissue, Rat heart tissue
All lanes: Actin antibody at 0.95µg/ml
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted 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°C 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°C.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°C. The secondary antibody used was FITC goat anti-rabbit IgG (H+L) at 1/200 dilution for 1 h at 4°C. Control antibody (green line) was used under the same conditions. Acquisition of >10,000 events was performed.

Description

CUSABIO cloned the DNA sequence encoding the ACTA1 monoclonal antibody into the plasmid and then transfected into the cell line for expression. The product was purified through the affinity-chromatography method and then got the recombinant ACTA1 monoclonal antibody. It belongs to the rabbit IgG. This ACTA1 antibody is reactive with human ACTA1 protein and has been validated in ELISA, WB, IHC, IF, and FC applications.

ACTA1 is a significant component in the skeletal muscle thin filament of the sarcomere, and it is required for force production, muscle contraction, and movement. So it is linked to a number of muscle disorders. In mice, knocking out ACTA1 results in muscular weakness and death in the early neonatal period. Congenital myopathies such as nemaline myopathy (NM), intranuclear rod myopathy (IRM), and actin myopathy (AM) are caused by amino acid changes in the ACTA1 protein.