SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

[Primary Antibody]

Recombinant Rabbit Anti-ACTA2 Monoclonal Antibody

Catalog Number: SLA0421M

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Clone No.:	8A14
GeneID:	59
SWISS:	P62736
Target:	ACTA2
Immunogen:	KLH conjugated synthetic peptide derived from human Actin alpha
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20℃ for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB (1:1000-20000) Flow-Cyt (1:100-200) ICC/IF (1:100-200) Not yet tested in other applications. Optimal working dilutions must be determined by the end user.
Reactivity:	Human,Mouse,Rat
Predicted MW.:	42 kDa
Subcellular Location:	Cytoplasm
Background:	All eukaryotic cells express Actin, which often constitutes as much as 50% of total cellular protein. Actin filaments can form both stable and labile structures and are crucial components of microvilli and the contractile apparatus of muscle cells. While lower eukaryotes, such as yeast, have only one Actin gene, higher eukaryotes have several isoforms encoded by a family of genes. At least six types of Actin are present in mammalian tissues and fall into three classes. alpha-Actin expression is limited to various types of muscle, whereas beta- and gamma-Actin are the principle constituents of filaments in other tissues. Members of the small GTPase family regulate the organization of the Actin

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

	cytoskeleton. Rho controls the assembly of Actin stress fibers and focal adhesion. Rac regulates Actin filament accumulation at the plasma membrane. Cdc42 stimulates formation of filopodia.

[VALIDATION IMAGES]

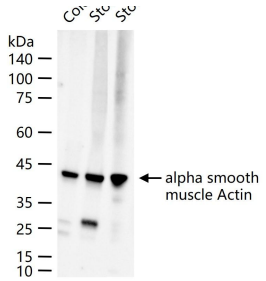


Figure 1. 25 ug total protein per lane of various lysates (see on figure) probed with alpha smooth muscle Actin monoclonal antibody, unconjugated (SLA0421M) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min

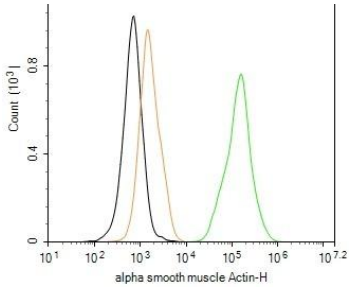


Figure 2. The NIH/3T3 treated with 5 ng/mL TGF-β1 for 72h (M) cells were fixed with 4% PFA (10 min at r.t.) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C,the cells then were incubated in 5%BSA to block non-specific protein-protein interactions (30 min at r.t.). Cells stained with Primary Antibody for 30 min at room temperature,followed by secondary antibody incubation for 40 min at room temperature. Primary Antibody (green):Rabbit Anti-alpha smooth muscle Actin antibody (SLA0421M,1:100); Isotype Control (orange): Rabbit IgG (SL0295P). Blank control (black): PBS. Acquisition of 20,000 events was performed

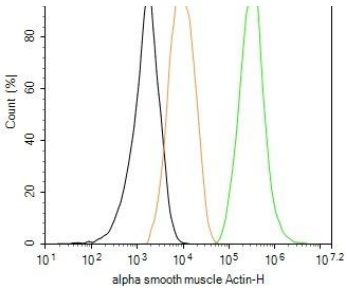


Figure 3. The WI-38 (treated with 5 ng/mL TGF-β1 for 72h) (H) cells were fixed with 4% PFA (10 min at r.t.) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C,the cells then were incubated in 5%BSA to block non-specific protein-protein interactions (30 min at r.t.). Cells stained with Primary Antibody for 30 min at room temperature,followed by secondary antibody incubation for 40 min at room temperature. Primary Antibody (green):Rabbit Anti-alpha smooth muscle Actin antibody (SLA0421M,1:100); Isotype Control (orange): Rabbit IgG (SL0295P). Blank control (black): PBS. Acquisition of 20,000 events was performed

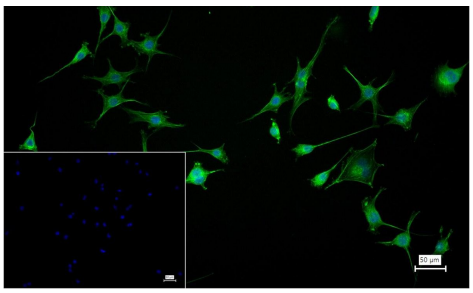


Figure 4. 4% Paraformaldehyde-fixed NIH/3T3 treated with 5 ng/mL TGF-β1 for 72h (M) cell; Triton X-100 at r.t. for 20 min; Antibody incubation with (alpha smooth muscle Actin) monoclonal Antibody, unconjugated (SLA0421M) 1:100, 90 min at 37°C; followed by BF488 conjugated Goat Anti-Rabbit IgG antibody (green, SL60295G-BF488) at 37°C for 90 min, DAPI (blue, C02-04002) was used to stain the cell nuclei. PBS instead of the primary antibody was used as the blank control

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

SunLong Biotech Co.,LTD

Tel: 0086-571-56623320 Fax:0086-571-56623318

E-mail:sales@sunlongbiotech.com

www.sunlongbiotech.com

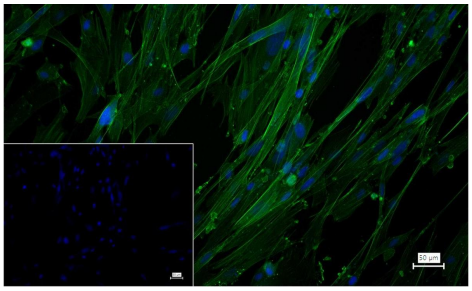


Figure 5. 4% Paraformaldehyde-fixed WI-38 (treated with 5 ng/mL TGF-β1 for 72h) (H) cell; Triton X-100 at r.t. for 20 min; Antibody incubation with (alpha smooth muscle Actin) monoclonal Antibody, unconjugated (SLA0421M) 1:100, 90 min at 37°C; followed by BF488 conjugated Goat Anti-Rabbit IgG antibody (green, SL60295G-BF488) at 37°C for 90 min, DAPI (blue, C02-04002) was used to stain the cell nuclei. PBS instead of the primary antibody was used as the blank control

FOR RESEARCH USE ONLY. Not for use in diagnostic or therapeutic procedures.

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.