



## $\beta$ -Actin (4D3) monoclonal antibody

Catalog: QS04026

### BackGround:

Actin, a ubiquitous eukaryotic protein, is the major component of the cytoskeleton. At least six isoforms are known in mammals. Nonmuscle  $\beta$ - and  $\gamma$ -actin, also known as cytoplasmic actin, are predominantly expressed in nonmuscle cells, controlling cell structure and motility.  $\alpha$ -cardiac and  $\alpha$ -skeletal actin are expressed in striated cardiac and skeletal muscles, respectively; two smooth muscle actins,  $\alpha$ - and  $\gamma$ -actin, are found primarily in vascular smooth muscle and enteric smooth muscle, respectively. These actin isoforms regulate the contractile potential of muscle cells.

### Product:

1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

### Molecular Weight:

~ 42 kDa

### Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

### Applications:

WB: 1:5000~1:20000

IHC: 1:100~1:1000

IF: 1:100~1:500

IP: 1:100~500

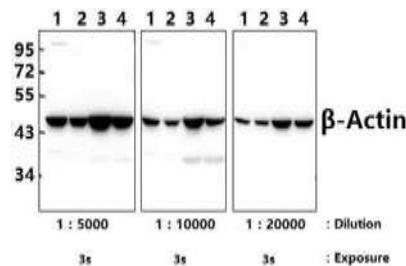
### Storage&Stability:

Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze-thaw cycles.

### Specificity:

$\beta$ -Actin (4D3) detects endogenous levels of  $\beta$ -actin protein.

### DATA:



Western blot (WB) analysis of  $\beta$ -Actin (4D3) mAb at 1:5000-1:20000 dilution

Lane1:The Lung tissue lysate of Mouse(20ug)

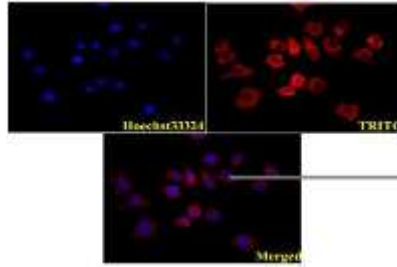
Lane2:The Lung tissue lysate of Rat(20ug)

Lane3:H9C2 whole cell lysate(20ug)

Lane4:CT26 whole cell lysate(20ug)

Lane5:L02 whole cell lysate(20ug)

Lane6:HEK293T whole cell lysate(20ug)



IF image of BS6007M stained A549 cells. The cells were 4% para- formaldehyde fixed (20 min) and then incubated in 10% normal goat serum for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody  $\beta$ -Actin (4D3) #BS6007M(1:200) at 5 $\mu$ g/ml overnight at +4 $^{\circ}$ C. The secondary antibody (Red) was Goat Anti-Mouse IgG (H+L) Rhodamine (TRITC)#BS11502 used at a 1/1000 dilution for 1h. Hoechst33342 #BD5011 was used to stain the cell nuclei (blue). Immunoprecipitation of MCF-7 cell lysates using  $\beta$ -Actin mAb (Sepharose Bead Conjugate)#BD0048 (lane 2 and lane 3) and Nonspecific IgG Control (Sepharose Bead Conjugate)#BD0048 (lane 4 and lane 5). Lane 1 is 30% input. The western blot was probed using  $\beta$ -Actin mAb.

**Note:**

For research use only, not for use in diagnostic procedure.