

# Alpha skeletal muscle Actin (4B11) Mouse mAb

CatalogNo: YM3149 **Comparable Abs** 

## Key Features

### Host Species

- Mouse

### Reactivity

- Human, Mouse, Rat

### Applications

- WB, IHC, IF, IP

### MW

- 42kD (Observed)

## Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)

**Formulation** PBS, pH 7.4, containing 0.5% BSA, 0.02% sodium azide as Preservative and 50% Glycerol.

## Recommended Dilution Ratios

**WB 1:500-10000**

**IP 1:200**

**IF 1:200**

**IHC 1:50-300**

## Basic Information

**Clonality** Monoclonal

**Clone Number** 4B11

## Immunogen Information

**Immunogen** Synthetic Peptide of  $\alpha$  skeletal muscle actin

**Specificity** The antibody detects endogenous  $\alpha$  Skeletal Muscle Actin protein.

## Target Information

**Gene name** ACTA1

**Protein Name** Alpha skeletal muscle Actin

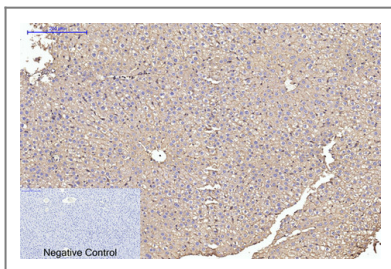
Organism	Gene ID	UniProt ID
Human	<a href="#">58</a> ;	<a href="#">P68133</a> ;
Mouse	<a href="#">11459</a> ;	<a href="#">P68134</a> ;
Rat	<a href="#">29437</a> ;	<a href="#">P68136</a> ;

**Cellular Localization** Cytoplasm, cytoskeleton.

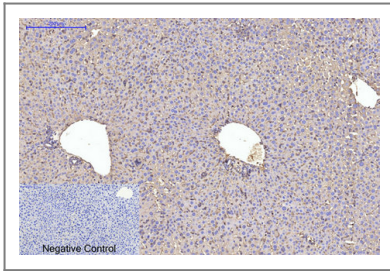
**Tissue specificity** Epithelium,Skeletal muscle,

**Function** Disease:Defects in ACTA1 are a cause of congenital myopathy with excess of thin myofilaments (CM) [MIM:102610].,Disease:Defects in ACTA1 are a cause of congenital myopathy with fiber-type disproportion (CFTD) [MIM:255310]; also known as congenital fiber-type disproportion myopathy (CFTDM). CFTD is a genetically heterogeneous disorder in which there is relative hypotrophy of type 1 muscle fibers compared to type 2 fibers on skeletal muscle biopsy. However, these findings are not specific and can be found in many different myopathic and neuropathic conditions.,Disease:Defects in ACTA1 are the cause of nemaline myopathy type 3 (NEM3) [MIM:161800]. Nemaline myopathy (NEM) is a form of congenital myopathy characterized by abnormal thread- or rod-like structures in muscle fibers on histologic examination. The clinical phenotype is highly variable, with differing age at onset and severity.,Function:Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.,miscellaneous:In vertebrates 3 main groups of actin isoforms, alpha, beta and gamma have been identified. The alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. The beta and gamma actins coexist in most cell types as components of the cytoskeleton and as mediators of internal cell motility.,similarity:Belongs to the actin family.,subunit:Polymerization of globular actin (G-actin) leads to a structural filament (F-actin) in the form of a two-stranded helix. Each actin can bind to 4 others. Interacts with TTID.,

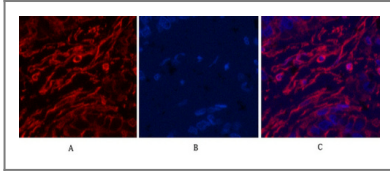
## Validation Data



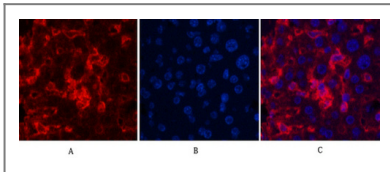
Immunohistochemical analysis of paraffin-embedded Rat-liver tissue. 1, $\alpha$  skeletal muscle actin Monoclonal Antibody(4B11) was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



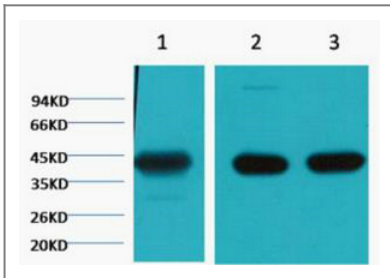
Immunohistochemical analysis of paraffin-embedded Mouse-liver tissue. 1,  $\alpha$  skeletal muscle actin Monoclonal Antibody(4B11) was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



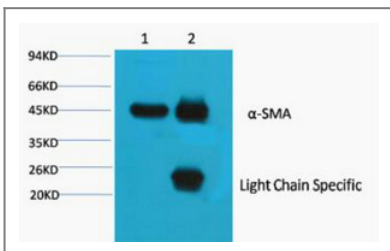
Immunofluorescence analysis of Human-liver-cancer tissue. 1,  $\alpha$  skeletal muscle actin Monoclonal Antibody(4B11)(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



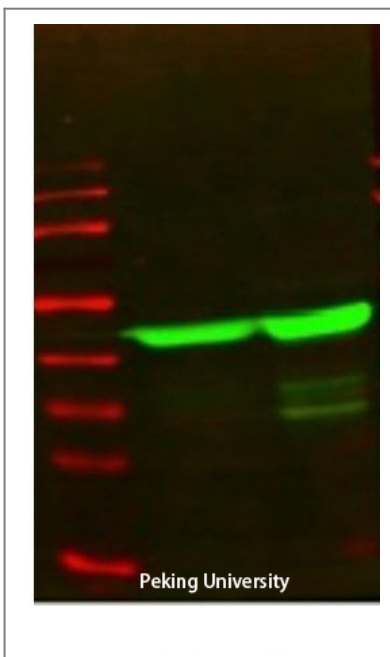
Immunofluorescence analysis of Mouse-liver tissue. 1,  $\alpha$  skeletal muscle actin Monoclonal Antibody(4B11)(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Western blot analysis of 1) HeLa, 2) Mouse Brain tissue, 3) Rat Brain tissue, diluted at 1:20000.



1) Input: Mouse Brain Tissue Lysate 2) IP product: IP dilute 1: 200



The picture was kindly provided by our customer

## | Contact information

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Please scan the QR code to access additional product information:  
**Alpha skeletal muscle Actin (4B11) Mouse mAb**

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