

## Basic Information

Product Name	Anti-ACTN3 Antibody	
Gene Name	ACTN3	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, IF, FCM	
Contents	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human ACTN3, different from the related mouse sequence by five amino acids.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	103 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunofluorescence (IF): 1:50-400 Flow Cytometry (Fixed): 1:50-200 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

## Storage

12 months from date of receipt, -20°C as supplied.

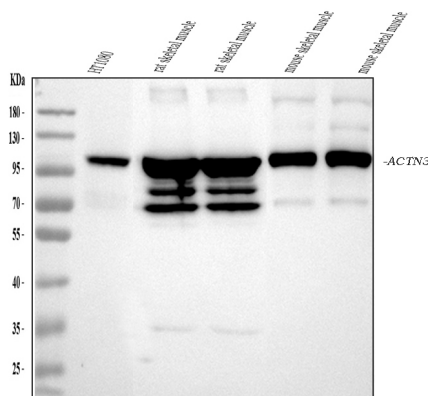
## Background Information

Alpha-actinin-3, also known as alpha-actinin skeletal muscle isoform 3 or F-actin cross-linking protein, is a protein that in humans is encoded by the ACTN3 gene. This gene encodes a member of the alpha-actin binding protein gene family. The encoded protein is primarily expressed in skeletal muscle and functions as a structural component of sarcomeric Z line. This protein is involved in crosslinking actin containing thin filaments. An allelic polymorphism in this gene results in both coding and non-coding variants; the reference genome represents the coding allele. The non-functional allele of this gene is associated with elite athlete status.

## Reference

Anti-ACTN3 Antibody被引用在2文献中。

## Selected Validation Data



Western blot analysis of ACTN3 using anti-ACTN3 antibody (PB10026). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: HT1080 whole cell lysates,

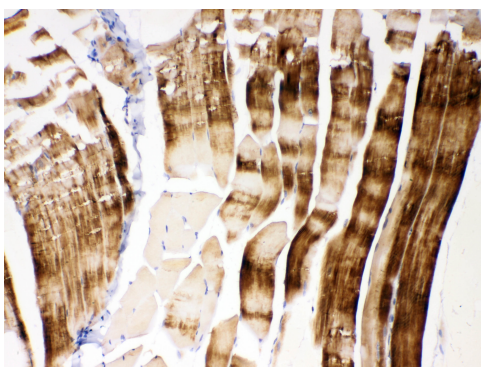
Lane 2: rat skeletal muscle tissue lysates,

Lane 3: rat skeletal muscle tissue lysates,

Lane 4: mouse skeletal muscle tissue lysates,

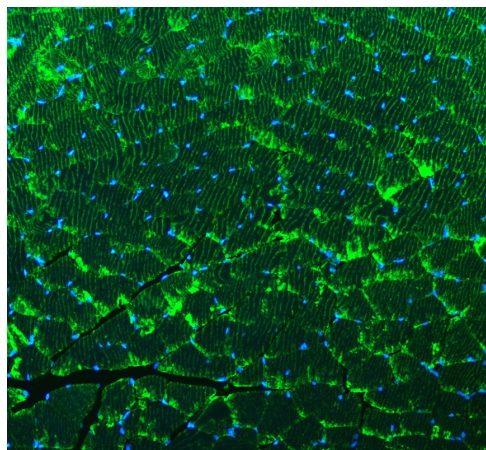
Lane 5: mouse skeletal muscle tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-ACTN3 antigen affinity purified polyclonal antibody (PB10026) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for ACTN3 at approximately 103 kDa. The expected band size for ACTN3 is at 103 kDa.



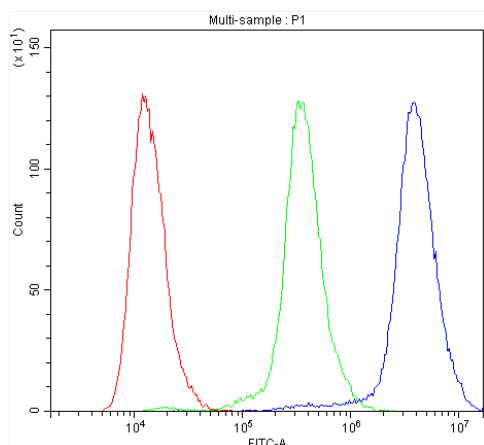
IHC analysis of ACTN3 using anti-ACTN3 antibody (PB10026).

ACTN3 was detected in a paraffin-embedded section of mouse skeletal muscle tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-ACTN3 Antibody (PB10026) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



IF analysis of ACTN3 using anti-ACTN3 antibody (PB10026).

ACTN3 was detected in a paraffin-embedded section of mouse skeletal muscle tissue. The tissue section was incubated with rabbit anti-ACTN3 Antibody (PB10026) at a dilution of 1:100. FITC Conjugated AffiniPure Goat Anti-rabbit IgG (H+L) Secondary Antibody (green) (Catalog # BA1105) was used as secondary antibody.



Flow Cytometry analysis of WISH cells using anti-ACTN3 antibody (PB10026).

Overlay histogram showing WISH cells stained with PB10026 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ACTN3 Antibody (PB10026) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.