

Basic Information

Product Name	Anti-ACTN3 Antibody	
Gene Name	ACTN3	
Source	Rabbit	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, FCM	
Contents	500 ug/ml antibody with PBS , 0.02% NaN ₃ , 1 mg BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human ACTN3 (574-617aa EADRERGAIMGIQGEIQKICQTYGLRPCSTNPYITLSPQDINT K), different from the related mouse sequence by five amino acids.	
concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	103KD	
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 Flow cytometry (FCM): 1-3 μ g/1x10 ⁶ cells (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. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

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1文献中。

Selected Validation Data

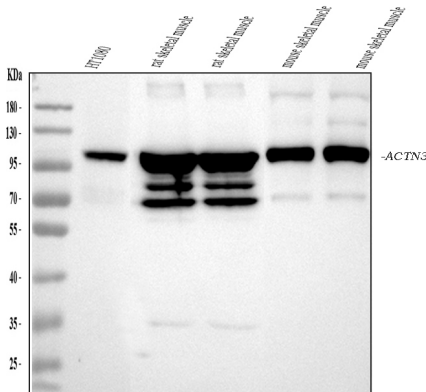


Figure 1. Western blot analysis of anti- ACTN3 antibody (PB10026). The sample well of each lane was loaded with 50ug of sample under reducing conditions.

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.

Use rabbit anti- ACTN3 1:1000, probed with a goat anti-rabbit IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002). A specific band was detected for ACTN3 at approximately 103KD. The expected band size for ACTN3 is at 103KD.

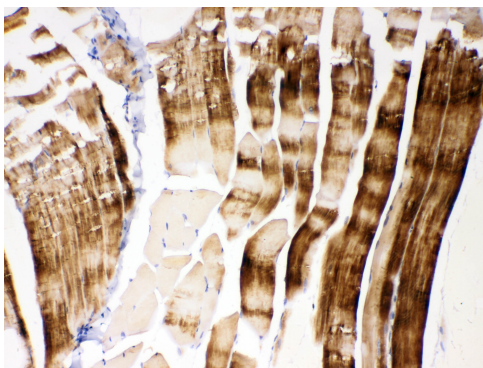


Figure 2. IHC analysis of ACTN3/Alpha Actinin 3 using anti-ACTN3/Alpha Actinin 3 antibody (PB10026).ACTN3/Alpha Actinin 3 was detected in paraffin-embedded section of mouse skeletal muscle tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti- ACTN3/Alpha Actinin 3 Antibody (PB10026) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

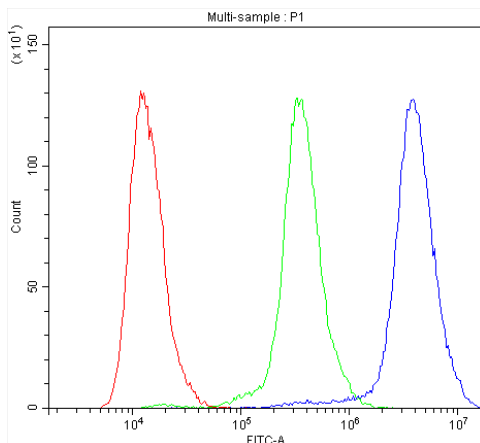


Figure 5. Flow Cytometry analysis of WISH cells using anti-ACTN3 antibody (PB10026).Overlay histogram showing WISH cells stained with PB10026 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ACTN3 Antibody (PB10026,1µg/1x10⁶ cells) for 30 min at 20°C. DyLight® 488 conjugated goat anti-rabbit IgG (BA1127, 5-10µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.