

Basic Information

Product Name	Anti-ACTN3 Antibody (Clone#9B5)	
Gene Name	ACTN3	
Source	Mouse	
Clonality	Monoclonal	
Isotype	IgG1	
Species Reactivity	mouse, rat	
Tested Application	WB, IHC	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 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	protein G purified.	
Observed MW	103 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 (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.	

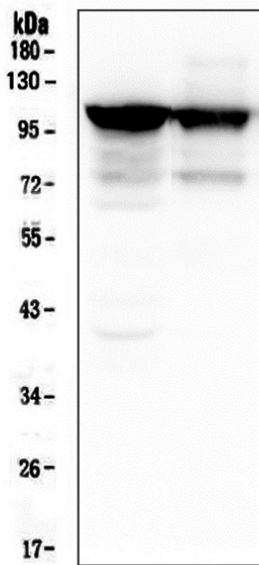
Storage

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.

Selected Validation Data

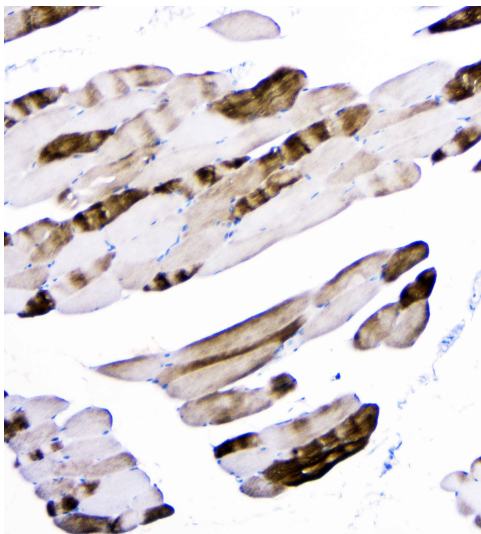


Western blot analysis of ACTN3 using anti-ACTN3 antibody (M02693). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: rat skeletal muscle tissue lysates,

Lane 2: mouse skeletal muscle tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti-ACTN3 antigen affinity purified monoclonal antibody (M02693) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). 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 (M02693).

ACTN3 was detected in a paraffin-embedded section of human skeletal muscle tissue. Biotinylated goat anti-mouse IgG was used as secondary antibody. The tissue section was incubated with mouse anti-ACTN3 Antibody (M02693) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB (Catalog # AR1027) as the chromogen.