

Anti-Alpha-Actinin Antibody (Monoclonal, EA-53)

Catalog # ABO10487

Product Information

Application	WB, IHC-P, IHC-F
Primary Accession	D3ZCV0
Host	Mouse
Isotype	Mouse IgG1
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal
Format	Lyophilized
Description	Mouse IgG monoclonal antibody for alpha-Actinin, actinin, alpha 2 (ACTN2) detection. Tested with WB, IHC-P, IHC-F in Human;mouse;rat;rabbit. No cross reactivity with other proteins.
Reconstitution	Add 1ml of PBS buffer will yield a concentration of 100ug/ml.

Additional Information

Calculated MW	103834 Da
Application Details	Immunohistochemistry(Paraffin-embedded Section), 1-2 μ g/ml, Human, mouse, rat, rabbit, By Heat Immunohistochemistry(Frozen Section), 1-2 μ g/ml, Human, mouse, rat, rabbit, - Western blot, 0.5-1 μ g/ml, Human, mouse, rat, rabbit
Subcellular Localization	ACTN2: Cytoplasm, myofibril, sarcomere, Z line Actn2: Cytoplasm, myofibril, sarcomere, Z line
Tissue Specificity	ACTN2: Expressed in both skeletal and cardiac muscle.
Protein Name	Alpha-actinin-2
Contents	Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN ₃ as preservative.
Clone Names	EA-53
Immunogen	Rabbit skeletal alpha-actinin.
Purification	Ascites
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After r ° Constitution, at 4 °C for one month. It ° Can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated

Protein Information

Background

Alpha-actinin was initially isolated from rabbit skeletal muscle as a factor that induces the gelation of F-actin and promotes the superprecipitation of actomyosin. Alpha actinins are actin-binding proteins that carry out different purposes in different different cell types. In myofibrillar cells, alpha-actinin constitutes a major component of Z-discs in striated muscle and of the functionally analogous dense bodies and dense plaques in smooth muscle. Alpha-actinin(alpha A) shares structural homology with spectrin and dystrophin.

Images

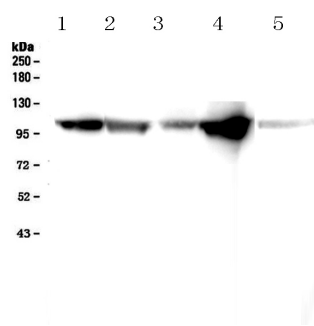


Figure 1. Western blot analysis of Alpha-Actinin using anti- Alpha-Actinin antibody (ABO10487). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat cardiac muscle tissue lysates, Lane 2: rat skeletal muscle tissue lysates, Lane 3: mouse cardiac muscle tissue lysates, Lane 4: mouse skeletal muscle tissue lysates, Lane 5: human placenta tissue lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti- Alpha-Actinin antigen affinity purified monoclonal antibody (Catalog # ABO10487) at 0.5 μ g/mL overnight at 4 $^{\circ}$ C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a Biotin Conjugated goat anti-mouse IgG secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Alpha-Actinin at approximately 103KD. The expected band size for Alpha-Actinin is at 103KD.

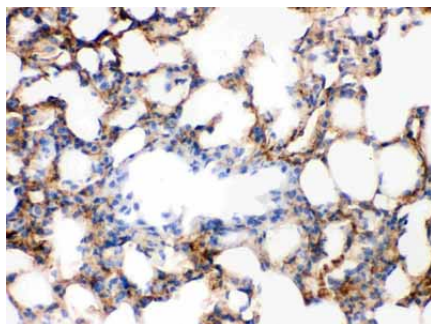


Figure 2. IHC analysis of Alpha-Actinin using anti- Alpha-Actinin antibody (ABO10487). Alpha-Actinin was detected in paraffin-embedded section of mouse lung tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1.5 μ g/ml mouse anti- Alpha-Actinin Antibody (ABO10487) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the chromogen.

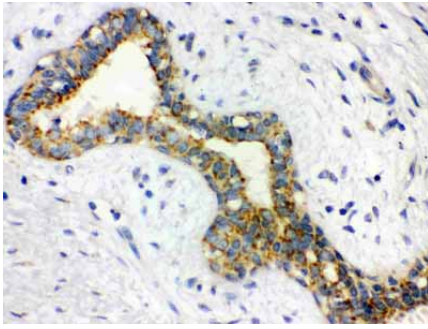


Figure 3. IHC analysis of Alpha-Actinin using anti-Alpha-Actinin antibody (ABO10487). Alpha-Actinin was detected in paraffin-embedded section of human mammary cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1.5 μ g/ml mouse anti- Alpha-Actinin Antibody (ABO10487) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the chromogen.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.