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#6487

α -Actinin (D6F6) XP[®] Rabbit mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IF-IC	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 100	Source/Isotype: Rabbit IgG	UniProt ID: #P12814	Entrez-Gene Id: 87
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Product Usage Information	Application Western Blotting Immunofluorescence (Immunocytochemistry)	Dilution 1:1000 1:100 - 1:200
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. <i>Do not aliquot the antibody.</i>	
Specificity/Sensitivity	α -Actinin (D6F6) XP [®] Rabbit mAb recognizes endogenous levels of total α -actinin protein.	
Species predicted to react based on 100% sequence homology	Zebrafish	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Phe316 of human α -actinin-1 protein.	
Background	α -Actinin belongs to the spectrin family of cytoskeletal proteins. It was first recognized as an actin cross-linking protein, forming an antiparallel homodimer with an actin binding head at the amino terminus of each monomer. The α -actinin protein interacts with a large number of proteins involved in signaling to the cytoskeleton, including those involved in cellular adhesion, migration, and immune cell targeting (1). The interaction of α -actinin with intercellular adhesion molecule-5 (ICAM-5) helps to promote neurite outgrowth (2). In osteoblasts, interaction of α -actinin with integrins stabilizes focal adhesions and may protect cells from apoptosis (3). The cytoskeletal α -actinin isoforms 1 and 4 (ACTN1, ACTN4) are non-muscle proteins that are present in stress fibers, sites of adhesion and intercellular contacts, filopodia, and lamellipodia. The muscle isoforms 2 and 3 (ACTN2, ACTN3) localize to the Z-discs of striated muscle and to dense bodies and plaques in smooth muscle (1).	
Background References	<ol style="list-style-type: none"> Otey, C.A. and Carpen, O. (2004) <i>Cell Motil Cytoskeleton</i> 58, 104-11. Nyman-Huttunen, H. et al. (2006) <i>J Cell Sci</i> 119, 3057-66. Triplett, J.W. and Pavalko, F.M. (2006) <i>Am J Physiol Cell Physiol</i> 291, C909-21. 	
Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).	
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.	
Applications Key	W: Western Blotting IF-IC: Immunofluorescence (Immunocytochemistry)	
Cross-Reactivity Key	H: Human M: Mouse R: Rat Mk: Monkey	
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