

Anti-α-Actinin 4 (Tyr-4), Phosphospecific Antibody

Catalog # AN1619

Specification

Anti-α-Actinin 4 (Tyr-4), Phosphospecific Antibody - Product Information

Primary Accession Reactivity Host Clonality Isotype Calculated MW <u>043707</u> Bovine Rabbit Rabbit Polyclonal IgG 104854

Anti-α-Actinin 4 (Tyr-4), Phosphospecific Antibody - Additional Information

Gene ID Other Names a-actinin 4, actinin alpha4 81

Target/Specificity

 α -Actinins are widely expressed cytoskeletal proteins that cross-link actin filaments through anti-parallel homodimers of the rod domains. Four α -actinin genes have been discovered in humans with α -actinin 1 and 4 being widely expressed in non-muscle cells. α -Actinins contain three conserved domains that include an N-terminal actin binding domain, four spectrin-like repeats in the central region, and a C-terminal calmodulin binding domain. α -Actinin cross-links the actin filament networks and associates the network to focal adhesion sites through binding of talin and vinculin. α -Actinin 1 is phosphorylated at Tyr-12 by FAK, while α -actinin 4 can be phosphorylated at Tyr-4 and Tyr-31 after EGF treatment. Tyr-4 and Tyr-31 phosphorylation inhibit actin binding and reduces actin-filament driven multi-nucleation in rat kidney cells. Thus, phosphorylation in α -actinins may be important for regulating actin binding and actin cytoskeletal remodeling.

Format Antigen Affinity Purified

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Anti- α -Actinin 4 (Tyr-4), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping Blue Ice

Anti-α-Actinin 4 (Tyr-4), Phosphospecific Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.



- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- <u>Cell Culture</u>

Anti-a-Actinin 4 (Tyr-4), Phosphospecific Antibody - Images



Western blot analysis of α -actinin 4 in A431 cells stimulated with pervanadate (1 mM) for 30 min (lanes 1,2,5.6) or after immunoprecipitation using α -actinin (C-terminal region) antibody in the absence (lanes 3 & 7) or presence of pervanadate-treated A431 cell lysate (lanes 4 & 8). Some lanes of the blot were treated with alkaline phosphatase (lanes 2 & 6). The blots were probed with anti- α -actinin (C-terminal region) or anti- α -actinin 4 (Tyr-4).

Anti-α-Actinin 4 (Tyr-4), Phosphospecific Antibody - Background

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