

## Product datasheet for **TA500072**

### alpha Actinin (ACTN1) Mouse Monoclonal Antibody [Clone ID: OTI7A4]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI7A4
Applications:	IF, WB
Recommended Dilution:	WB 1:2000, IF 1:100
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Human recombinant protein fragment corresponding to amino acids 650-893 of human alpha-actinin (NP_001093) produced in E.coli.
Formulation:	PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Concentration:	1 mg/ml
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	102.9 kDa
Gene Name:	actinin alpha 1
Database Link:	<a href="#">NP_001093</a> <a href="#">Entrez Gene 81634 Rat</a> <a href="#">Entrez Gene 109711 Mouse</a> <a href="#">Entrez Gene 87 Human</a> <a href="#">P12814</a>

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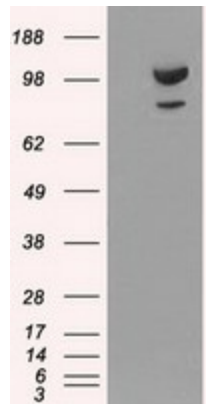
**Background:** Alpha actinins belong to the spectrin gene superfamily which represents a diverse group of cytoskeletal proteins, including the alpha and beta spectrins and dystrophins. Alpha actinin is an actin-binding protein with multiple roles in different cell types. In nonmuscle cells, the cytoskeletal isoform is found along microfilament bundles and adherens-type junctions, where it is involved in binding actin to the membrane. In contrast, skeletal, cardiac, and smooth muscle isoforms are localized to the Z-disc and analogous dense bodies, where they help anchor the myofibrillar actin filaments.

**Synonyms:** BDPLT15

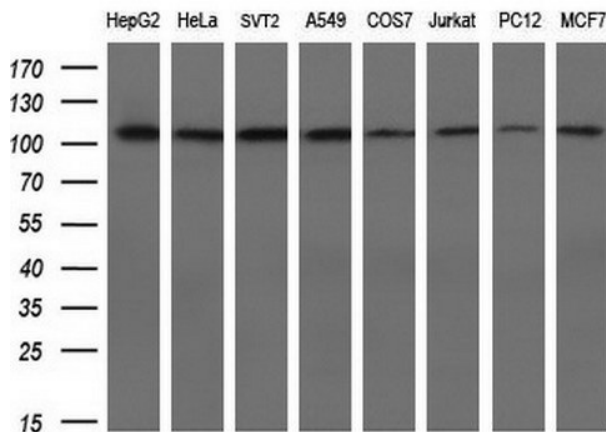
**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS

**Protein Pathways:** Adherens junction, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Focal adhesion, Leukocyte transendothelial migration, Regulation of actin cytoskeleton, Systemic lupus erythematosus, Tight junction

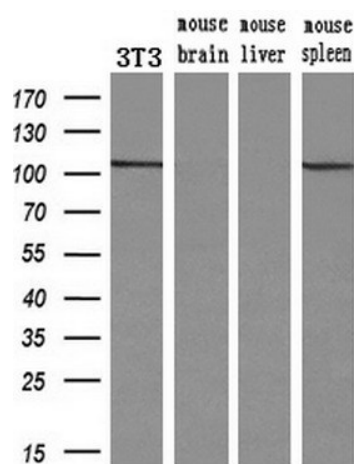
### Product images:



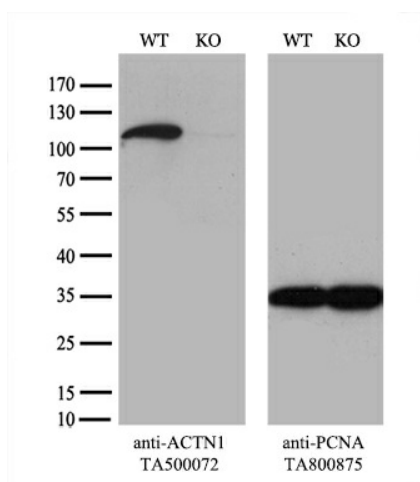
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ACTN1 (Cat# [RC204924], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ACTN1(Cat# TA500072). Positive lysates [LY400447] (100ug) and [LC400447] (20ug) can be purchased separately from OriGene.



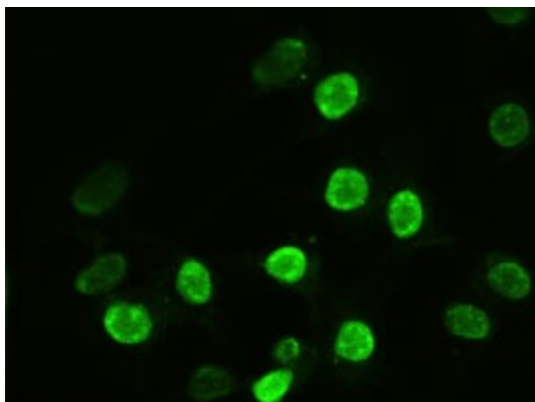
Western blot analysis of extracts (10ug) from 8 different cell lines by using anti-ACTN1 monoclonal antibody at 1:200 dilution.



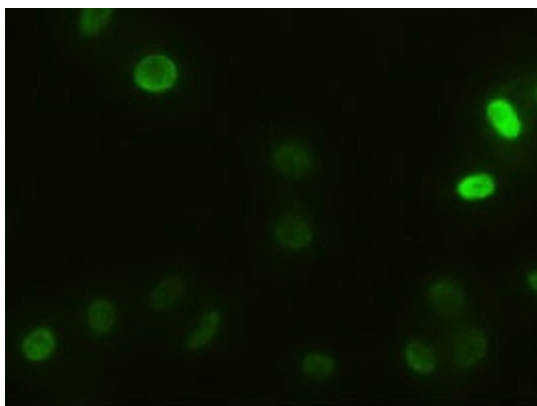
Western blot analysis of extracts (10ug) from a mouse cell line and 3 different mouse tissues by using anti-ACTN1 monoclonal antibody (1:200).



Equivalent amounts of cell lysates (10 ug per lane) of wild-type HeLa cells (WT, Cat# LC810HELA) and ACTN1-Knockout HeLa cells (KO, Cat# [LC832215]) were separated by SDS-PAGE and immunoblotted with anti-ACTN1 monoclonal antibody TA500072 (1:500<sup>+</sup>). Then the blotted membrane was stripped and reprobed with anti-PCNA antibody as a loading control.



Anti-ACTN1 mouse monoclonal antibody (TA500072) immunofluorescent staining of HeLa cells transiently transfected by pCMV6-ENTRY ACTN1 ([RC204924]).



Immunofluorescent staining of HeLa cells using anti-ACTN1 mouse monoclonal antibody (TA500072).