

# ACTN4 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant ACTN4.

Catalog # AT1033a

## Product Information

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<b>Application</b>	WB, IHC, IF, E
<b>Primary Accession</b>	<a href="#">O43707</a>
<b>Other Accession</b>	<a href="#">NM_004924</a>
<b>Reactivity</b>	Human, Mouse, Rat
<b>Host</b>	Mouse
<b>Clonality</b>	monoclonal
<b>Isotype</b>	IgG2a Kappa
<b>Clone Names</b>	4D10
<b>Calculated MW</b>	104854

## Additional Information

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<b>Gene ID</b>	81
<b>Other Names</b>	Alpha-actinin-4, F-actin cross-linking protein, Non-muscle alpha-actinin 4, ACTN4
<b>Target/Specificity</b>	ACTN4 (NP_004915, 592 a.a. ~ 701 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
<b>Dilution</b>	WB~~1:500~1000 IHC~~1:100~500 IF~~1:50~200 E~~N/A
<b>Format</b>	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
<b>Storage</b>	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
<b>Precautions</b>	ACTN4 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

## Background

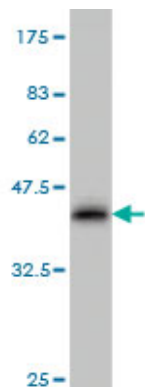
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Alpha actinins belong to the spectrin gene superfamily which represents a diverse group of cytoskeletal proteins, including the alpha and beta spectrins and dystrophins. Alpha actinin is an actin-binding protein with multiple roles in different cell 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. This gene encodes a nonmuscle, alpha actinin isoform which is concentrated in the cytoplasm, and thought to be involved in metastatic processes. Mutations in this gene have been associated with focal and segmental glomerulosclerosis.

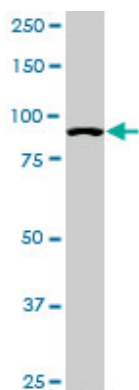
## References

1.RNAi-mediated down-regulation of alpha-actinin-4 decreases invasion potential in oral squamous cell carcinoma.Yamada S, Yanamoto S, Yoshida H, Yoshitomi I, Kawasaki G, Mizuno A, Nemoto TK.Int J Oral Maxillofac Surg. 2009 Nov 11. [Epub ahead of print]

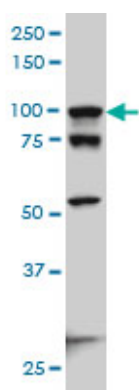
## Images



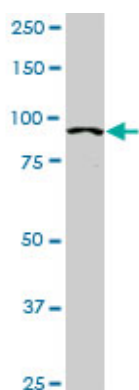
Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (37.84 KDa) .



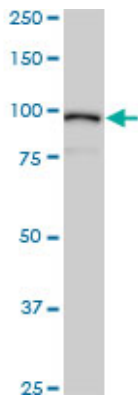
ACTN4 monoclonal antibody (M01), clone 4D10. Western Blot analysis of ACTN4 expression in PC-12 ( (Cat # AT1033a )



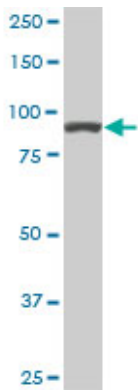
ACTN4 monoclonal antibody (M01), clone 4D10 Western Blot analysis of ACTN4 expression in HeLa S3 NE ( (Cat # AT1033a )



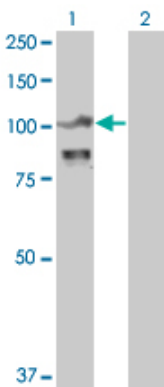
ACTN4 monoclonal antibody (M01), clone 4D10. Western Blot analysis of ACTN4 expression in Raw 264.7 ( (Cat # AT1033a )



ACTN4 monoclonal antibody (M01), clone 4D10. Western Blot analysis of ACTN4 expression in MCF-7 (Cat # AT1033a)



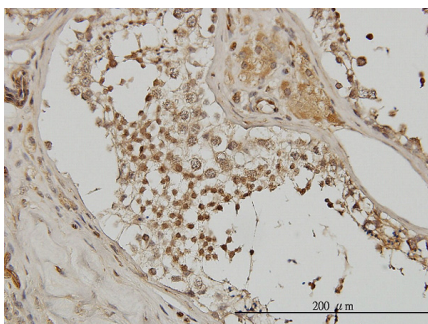
ACTN4 monoclonal antibody (M01), clone 4D10. Western Blot analysis of ACTN4 expression in NIH/3T3 (Cat # AT1033a)



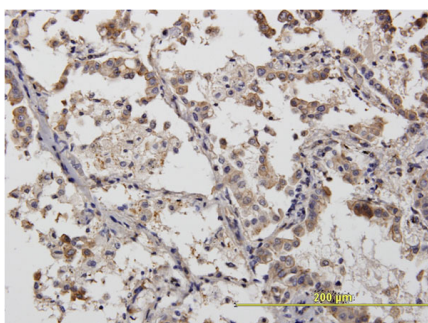
Western Blot analysis of ACTN4 expression in transfected 293T cell line by ACTN4 monoclonal antibody (M01), clone 4D10.

Lane 1: ACTN4 transfected lysate(104.9 KDa).

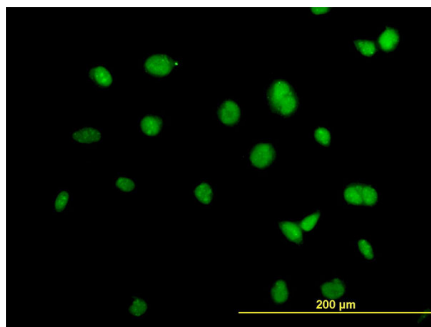
Lane 2: Non-transfected lysate.



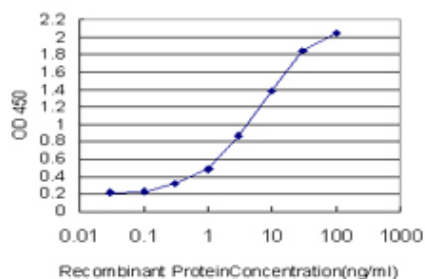
Immunoperoxidase of monoclonal antibody to ACTN4 on formalin-fixed paraffin-embedded human testis. [antibody concentration 3 ug/ml]



Immunoperoxidase of monoclonal antibody to ACTN4 on formalin-fixed paraffin-embedded human lung adenocarcinoma. [antibody concentration 3 ug/ml]



Immunofluorescence of monoclonal antibody to ACTN4 on HeLa cell. [antibody concentration 20 ug/ml]



Detection limit for recombinant GST tagged ACTN4 is approximately 0.1ng/ml as a capture antibody.

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