

**ACTN4 Antibody (monoclonal) (M01)**

Mouse monoclonal antibody raised against a partial recombinant ACTN4.

Catalog # AT1033a

**Specification**

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**ACTN4 Antibody (monoclonal) (M01) - Product Information**

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

**ACTN4 Antibody (monoclonal) (M01) - Additional Information****Gene ID** 81**Other Names**

Alpha-actinin-4, F-actin cross-linking protein, Non-muscle alpha-actinin 4, ACTN4

**Target/Specificity**

ACTN4 (NP\_004915, 592 a.a. ~ 701 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

**Dilution**

WB ~ ~ 1:500 ~ 1000

**Format**

Clear, colorless solution in phosphate buffered saline, pH 7.2 .

**Storage**

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

**Precautions**

ACTN4 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

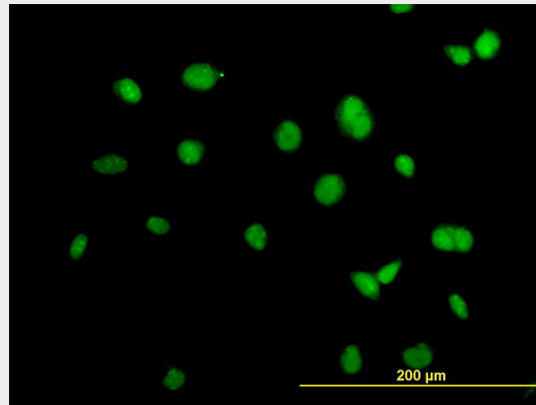
**ACTN4 Antibody (monoclonal) (M01) - Protocols**

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

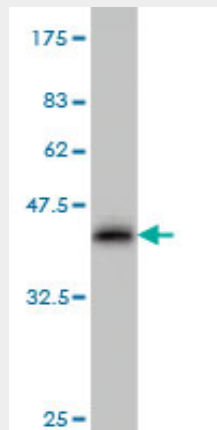
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)

- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

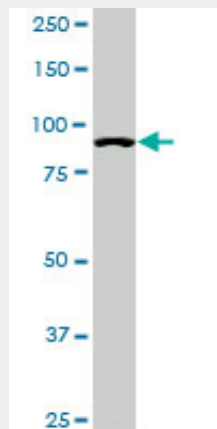
### ACTN4 Antibody (monoclonal) (M01) - Images



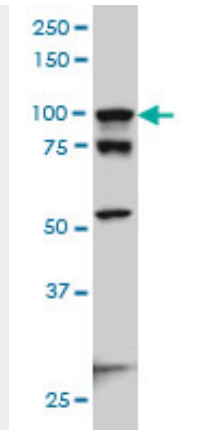
Immunofluorescence of monoclonal antibody to ACTN4 on HeLa cell. [antibody concentration 20 ug/ml]



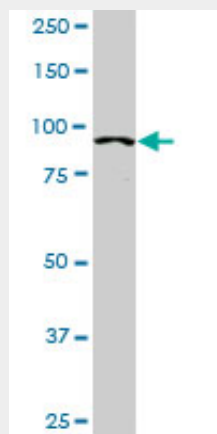
Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (37.84 KDa) .



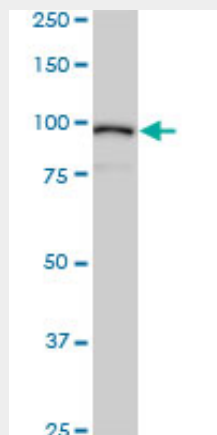
ACTN4 monoclonal antibody (M01), clone 4D10. Western Blot analysis of ACTN4 expression in PC-12 ( (Cat # AT1033a )



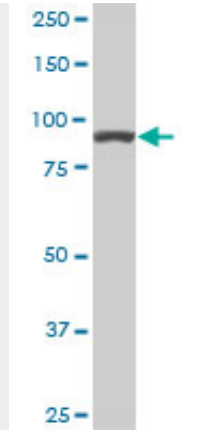
ACTN4 monoclonal antibody (M01), clone 4D10 Western Blot analysis of ACTN4 expression in HeLa S3 NE ( (Cat # AT1033a )



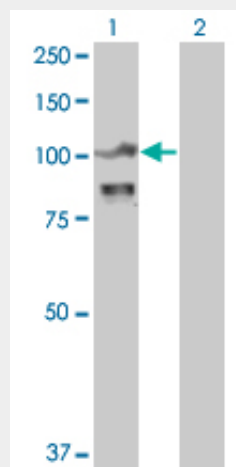
ACTN4 monoclonal antibody (M01), clone 4D10. Western Blot analysis of ACTN4 expression in Raw 264.7 ( (Cat # AT1033a )



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



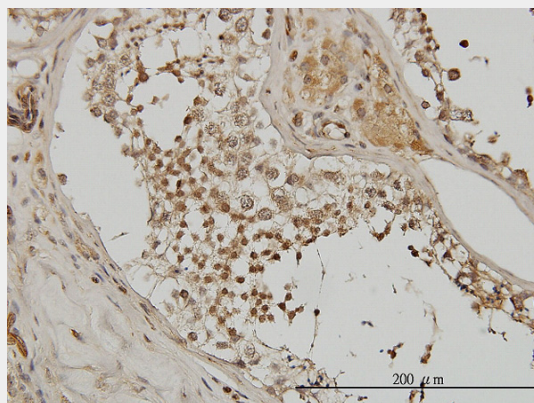
ACTN4 monoclonal antibody (M01), clone 4D10. Western Blot analysis of ACTN4 expression in NIH/3T3 ( (Cat # AT1033a )



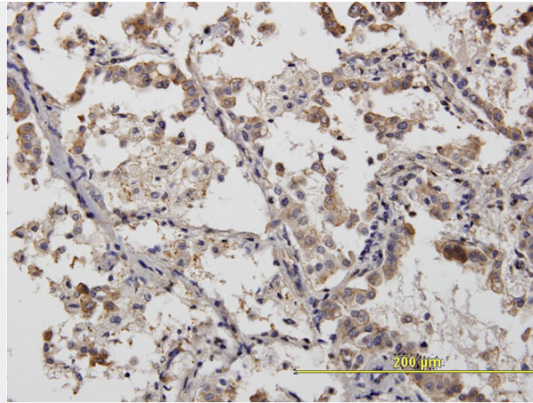
Western Blot analysis of ACTN4 expression in transfected 293T cell line by ACTN4 monoclonal antibody (M01), clone 4D10.

Lane 1: ACTN4 transfected lysate(104.9 KDa).

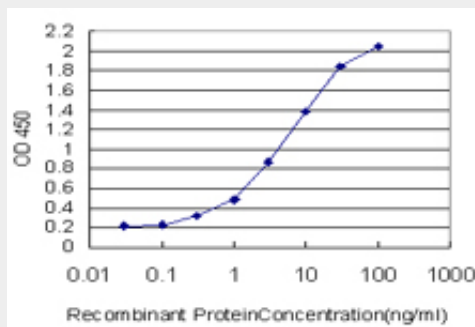
Lane 2: Non-transfected lysate.



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]



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

### **ACTN4 Antibody (monoclonal) (M01) - 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. 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.

### **ACTN4 Antibody (monoclonal) (M01) - 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]