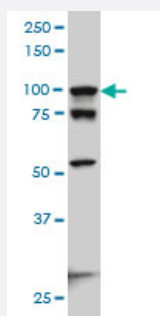


ACTN4 monoclonal antibody (M01), clone 4D10

Catalog # H00000081-M01

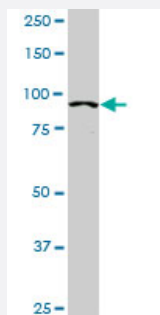
Size 100 ug

Applications



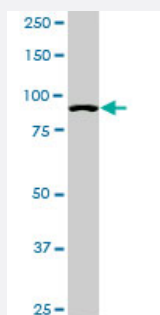
Western Blot (Cell lysate)

ACTN4 monoclonal antibody (M01), clone 4D10 Western Blot analysis of ACTN4 expression in HeLa S3 NE (Cat # L013V3).



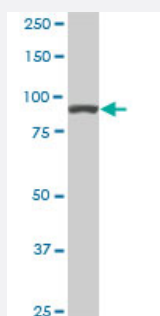
Western Blot (Cell lysate)

ACTN4 monoclonal antibody (M01), clone 4D10. Western Blot analysis of ACTN4 expression in Raw 264.7 (Cat # L024V1).



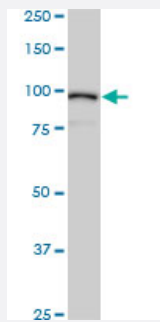
Western Blot (Cell lysate)

ACTN4 monoclonal antibody (M01), clone 4D10. Western Blot analysis of ACTN4 expression in PC-12 (Cat # L012V1).



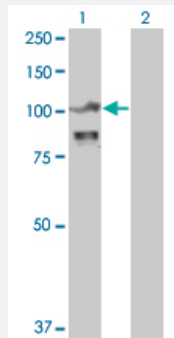
Western Blot (Cell lysate)

ACTN4 monoclonal antibody (M01), clone 4D10. Western Blot analysis of ACTN4 expression in NIH/3T3 (Cat # L018V1).



Western Blot (Cell lysate)

ACTN4 monoclonal antibody (M01), clone 4D10. Western Blot analysis of ACTN4 expression in MCF-7 (Cat # L046V1).

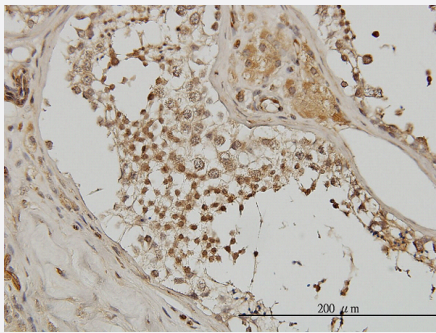


Western Blot (Transfected lysate)

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

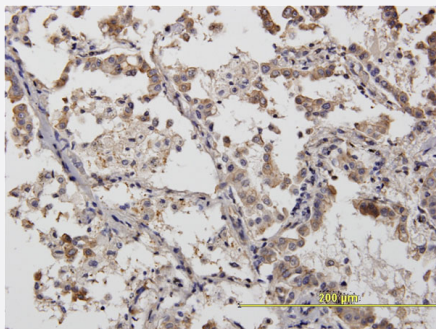
Lane 1: ACTN4 transfected lysate(104.9 KDa).

Lane 2: Non-transfected lysate.



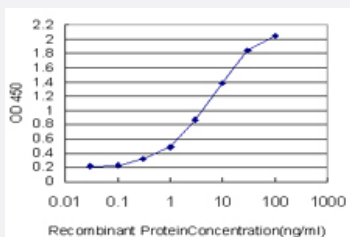
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

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



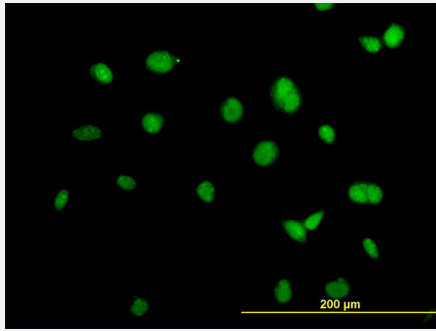
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

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



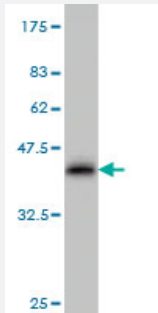
Sandwich ELISA (Recombinant protein)

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



Immunofluorescence

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



Western Blot detection against Immunogen (37.84 KDa) .

Specification

Product Description	Mouse monoclonal antibody raised against a partial recombinant ACTN4.
Immunogen	ACTN4 (NP_004915, 592 a.a. ~ 701 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	KEAQRIAESNHIKLSGSNPYTTVTPQIINSKWEKVQQLVPKRDHALLEEQSKQQSNEHLRRQFASQ ANVVG PWIQTKMEEIGRISIE MNGTLEDQLSHLKQYERSIVDYK
Host	Mouse
Reactivity	Human, Mouse, Rat
Interspecies Antigen Sequence	Mouse (99); Rat (98)
Isotype	IgG2a Kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (37.84 KDa) .
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot (Cell lysate)

ACTN4 monoclonal antibody (M01), clone 4D10 Western Blot analysis of ACTN4 expression in Hela S3 NE (Cat # L013V3).

[Protocol Download](#)

- Western Blot (Cell lysate)

ACTN4 monoclonal antibody (M01), clone 4D10. Western Blot analysis of ACTN4 expression in Raw 264.7 (Cat # L024V1).

[Protocol Download](#)

- Western Blot (Cell lysate)

ACTN4 monoclonal antibody (M01), clone 4D10. Western Blot analysis of ACTN4 expression in PC-12 (Cat # L012V1).

[Protocol Download](#)

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[Protocol Download](#)

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[Protocol Download](#)

- Western Blot (Transfected lysate)

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.

[Protocol Download](#)

- Western Blot (Recombinant protein)

[Protocol Download](#)

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

[Protocol Download](#)

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[Protocol Download](#)

- Sandwich ELISA (Recombinant protein)

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

[Protocol Download](#)

- ELISA

- Immunofluorescence

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

Gene Info — ACTN4

Entrez GeneID	81
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GeneBank Accession#	NM_004924
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Protein Accession#	NP_004915
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Gene Name	ACTN4
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Gene Alias	ACTININ-4, DKFZp686K23158, FSGS, FSGS1
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Gene Description	actinin, alpha 4
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Omim ID	603278 604638
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Gene Ontology	Hyperlink
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Gene Summary

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 is thought to be involved in metastatic processes. Mutations in this gene have been associated with focal and segmental glomerulosclerosis. [provided by RefSeq]

Other Designations

actinin alpha4 isoform

Publication Reference

- [Actinin-4 splice variant - a complementary diagnostic and prognostic marker of pancreatic neuroendocrine neoplasms.](#)

Xu X, Honda K, Miura N, Hori S, Le Blanc S, Bergmann F, Gaida MM, Volkmar M, Schimmack S, Hackert T, Strobel O, Felix K.
Journal of Cancer 2020 Feb; 11(8):2318.

Application: IHC-P, Human, Human pancreatic neuroendocrine neoplasms

- [The actin cytoskeleton is important for rotavirus internalization and RNA genome replication.](#)

Trejo-Cerro O, Aguilar-Hernández N, Silva-Ayala D, López S, Arias CF.
Virus Research 2019 Jan; 263:27.

Application: WB-Tr, Monkey, MA104 cells

- [Actinin-4 protein overexpression as a predictive biomarker in adjuvant chemotherapy for resected lung adenocarcinoma.](#)

Shiraishi H, Fujiwara Y, Kakuya T, Tsuta K, Motoi N, Miura N, Watabe Y, Watanabe SI, Noro R, Nagashima K, Huang W, Yamada T, Asamura H, Ohe Y, Honda K.
Biomarkers in Medicine 2017 Jun; [Epub].

Application: IHC-P, Human, Human lung adenocarcinoma

- [Expression of Nephryn, Podocin, alpha-Actinin-4 and alpha-3-Integrin in Canine Renal Glomeruli.](#)

R Kobayashi, J Kamiie, K Yasuno, K Ogiwara, K Shirota.
Journal of Comparative Pathology 2011 Aug; 145(2-3):220.

Application: IF, IHC-Fr, WB-Ti, Dog, Dog kidney

- [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.

International Journal of Oral and Maxillofacial Surgery 2009 Nov; 39(1):61.

Application: IHC-P, WB-Ce, WB-Tr, Human, Ca9-22, HEKa, HSC-2, HSC3, HSC-4, OSC20, SAS, SCC25 cells, Human oral squamous cell carcinomas

Pathway

- [Adherens junction](#)
- [Arrhythmogenic right ventricular cardiomyopathy \(ARVC\)](#)
- [Focal adhesion](#)
- [Leukocyte transendothelial migration](#)
- [Regulation of actin cytoskeleton](#)
- [Systemic lupus erythematosus](#)
- [Tight junction](#)

Disease

- [Alport syndrome](#)
- [Cardiovascular Diseases](#)
- [Diabetes Mellitus](#)
- [Diabetic Nephropathies](#)
- [Edema](#)
- [Genetic Predisposition to Disease](#)
- [Glomerulosclerosis](#)
- [Kidney Diseases](#)
- [Proteinuria](#)