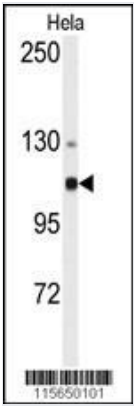
ACTN4 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	ACTN4, Polyclonal Antibody
Full Product Name	ACTN4, NT (Alpha-actinin-4, Non-muscle alpha-actinin 4, F-actin Cross-linking Protein) (MaxLight 550)
Product Gene Name	anti-ACTN4 antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight550.
Purity/Purification	Purified by Ammonium Sulfate Precipitation.
Specificity	Recognizes human ACTN4.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight550 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	59,579 Da
OMIM	phenotype 604638
3D Structure	ModBase 3D Structure for O43707
Immunogen	Synthetic peptide selected from the N-terminal region of human ACTN4 (KLH).
Conjugate	MaxLight550
Note	Preservative Free
Product Categories/Family for anti-ACTN4 antibody	Antibodies; Actin Related Proteins
Applications Tested/Suitable for anti-ACTN4 antibody	Immunohistochemistry (IHC), FLISA, Western Blot (WB)
Application Notes for anti-ACTN4 antibody	IHC: 1:10-1:50 FLISA: 1:1,000 WB: 1:50-1:100 Applications are based on unconjugated antibody.
Related Product Information for anti-ACTN4 antibody	MBS6461264 is an antibody targeting ACTN4. Also known as ACTN4, NT (Alpha-actinin-4, Non-muscle alpha-actinin 4, F-actin Cross-linking Protein) (MaxLight 550). Reactive in Human. Host: Rabbit.
Product References and Citations for anti-ACTN4 antibody	1. Kikuchi, S., Clin. Cancer Res. 14(17), 5348-5356 (2008). 2. Barbolina, M.V., Lab. Invest. 88(6), 602-614 (2008). 3. Kimura, M., Intern. Med. 47(12), 1099-1106 (2008).
Other Notes	Small volumes of anti-ACTN4 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-ACTN4 antibody
Western blot analysis of anti-ACTN4 Antibody (N-term) in Hela cell line lysates (35ug/lane).
ACTN4 (arrow) was detected using the purified Pab.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ACTN4. It may not necessarily be applicable to this product.

NCBI GI #	12025678
NCBI GeneID	81
NCBI Accession #	NP_004915
UniProt Primary Accession #	O43707
UniProt Secondary Accession #	O76048; A4K467; D6PXK4
UniProt Related Accession #	O43707
GenBank Nucleotide #	NM_004924.5
NCBI Official Full Name	alpha-actinin-4 isoform 1
NCBI Official Synonym Full Names	actinin alpha 4
NCBI Official Symbol	ACTN4
NCBI Official Synonym Symbols	FSGS; FSGS1; ACTININ-4
UniProt Protein Name	Alpha-actinin-4
UniProt Synonym Protein Names	F-actin cross-linking protein; Non-muscle alpha-actinin 4
Protein Family	Alpha-actinin
UniProt Gene Name	ACTN4
UniProt Entry Name	ACTN4_HUMAN
NCBI Protein Information	alpha-actinin-4
NCBI Summary for ACTN4	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. [provided by RefSeq, Jul 2008]

UniProt Comments for ACTN4	ACTN4: F-actin cross-linking protein which is thought to anchor actin to a variety of intracellular structures. This is a bundling protein. Probably involved in vesicular trafficking via its association with the CART complex. The CART complex is necessary for efficient transferrin receptor recycling but not for EGFR degradation. Defects in ACTN4 are the cause of focal segmental glomerulosclerosis type 1 (FSGS1). A renal pathology defined by the presence of segmental sclerosis in glomeruli and resulting in proteinuria, reduced glomerular filtration rate and edema. Renal insufficiency often progresses to end-stage renal disease, a highly morbid state requiring either dialysis therapy or kidney transplantation. Belongs to the alpha-actinin family. Protein type: Motility/polarity/chemotaxis; Cytoskeletal Chromosomal Location of Human Ortholog: 19q13 Cellular Component: cortical cytoskeleton; extracellular space; neuron projection; focal adhesion; protein complex; perinuclear region of cytoplasm; cytoplasm; stress fiber; extracellular region; intercellular junction; pseudopodium; Z disc; ribonucleoprotein complex; nucleus Molecular Function: actin filament binding; integrin binding; protein binding; protein homodimerization activity; ligand-dependent nuclear receptor transcription coactivator activity; retinoic acid receptor binding; nucleoside binding; protein N-terminus binding; calcium ion binding; actin binding; nuclear hormone receptor binding Biological Process: regulation of apoptosis; retinoic acid receptor signaling pathway; platelet activation; actin filament bundle formation; protein transport; platelet degranulation; response to hypoxia; negative regulation of cell motility; positive regulation of cell motility; positive regulation of sodium:hydrogen antiporter activity; positive regulation of pinocytosis; blood coagulation Disease: Focal Segmental Glomerulosclerosis 1
Research Articles on ACTN4	**1.** Selective regulation of NF-kappaB gene targets may indicate involvement of ACTN4 in determining the specificity of cell response to NF-kappaB activation in cells of different types. (Review)
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