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Nesprin 1 Antibody

Rabbit mAb
Catalog # AP91769

Product Information

Application	WB, IHC, IF, FC, ICC, IHF
Primary Accession	Q8NF91
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	ARCA1; C6orf98; CPG2; EDMD4; Enaptin; Myne-1; MYNE1; Nesp1; Nesprin-1; SCAR8; Syne-1; SYNE1;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	1011086

Additional Information

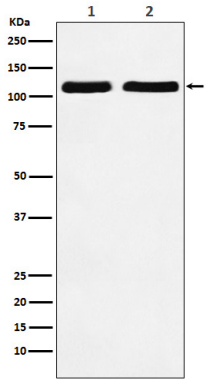
Dilution	WB 1:500~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Nesprin 1
Description	Multi-isomeric modular protein which forms a linking network between organelles and the actin cytoskeleton to maintain the subcellular spatial organization. Component of SUN-protein-containing multivariate complexes also called LINC complexes which link the nucleoskeleton and cytoskeleton by providing versatile outer nuclear membrane attachment sites for cytoskeletal filaments.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	SYNE1 (HGNC:17089)
Function	Multi-isomeric modular protein which forms a linking network between organelles and the actin cytoskeleton to maintain the subcellular spatial organization. As a component of the LINC (LInker of Nucleoskeleton and Cytoskeleton) complex involved in the connection between the nuclear lamina and the cytoskeleton. The nucleocytoplasmic interactions established by the LINC complex play an important role in the transmission of mechanical forces across the nuclear envelope and in nuclear movement and positioning. May be involved in nucleus- centrosome attachment and nuclear migration in neural progenitors implicating LINC complex association with SUN1/2 and probably association with cytoplasmic dynein-dynactin motor complexes; SYNE1 and SYNE2 may act redundantly. Required for centrosome migration to the apical cell surface during early ciliogenesis. May be involved in nuclear

	remodeling during sperm head formation in spermatogenesis; a probable SUN3:SYNE1/KASH1 LINC complex may tether spermatid nuclei to posterior cytoskeletal structures such as the manchette.
Cellular Location	Nucleus outer membrane; Single-pass type IV membrane protein; Cytoplasmic side Nucleus. Nucleus envelope. Cytoplasm, cytoskeleton. Cytoplasm, myofibril, sarcomere. Note=The largest part of the protein is cytoplasmic, while its C-terminal part is associated with the nuclear envelope, most probably the outer nuclear membrane. In skeletal and smooth muscles, a significant amount is found in the sarcomeres. In myoblasts, relocalized from the nuclear envelope to the nucleus and cytoplasm during cell differentiation
Tissue Location	Expressed in HeLa, A431, A172 and HaCaT cells (at protein level). Widely expressed. Highly expressed in skeletal and smooth muscles, heart, spleen, peripheral blood leukocytes, pancreas, cerebellum, stomach, kidney and placenta. Isoform GSRP-56 is predominantly expressed in heart and skeletal muscle (at protein level).

Images



Western blot analysis of Nesprin 1 expression in (1) HeLa cell lysate; (2) RAW264.7 cell lysate.