Anti-SYNE2 antibody

Description	Unconjugated Rabbit polyclonal to SYNE2

Model	STJ191047
Host	Rabbit
Reactivity	Human, Mouse
Applications	IHC
Immunogen	Synthesized peptide derived from human SYNE2 protein.
Immunogen Region	360-440aa
Gene ID	23224
Gene Symbol	SYNE2
Dilution range	IHC-p 1:50-300
Specificity	SYNE2 Polyclonal Antibody detects endogenous levels of protein.
Tissue Specificity	Widely expressed, with higher level in kidney, adult and fetal liver, stomach and placenta. Weakly expressed in skeletal muscle and brain. Isoform 5 is highly expressed in pancreas, skeletal muscle and heart.
Purification	SYNE2 antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Nesprin-2 KASH domain-containing protein 2 KASH2 Nuclear envelope spectrin repeat protein 2 Nucleus and actin connecting element protein Protein NUANCE Synaptic nuclear envelope protein 2 Syne-2

Molecular Weight	757 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid form in PBS containing 50% glycerol,and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:17084OMIM:608442
Alternative Names	Nesprin-2 KASH domain-containing protein 2 KASH2 Nuclear envelope spectrin repeat protein 2 Nucleus and actin connecting element protein Protein NUANCE Synaptic nuclear envelope protein 2 Syne-2
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. Specifically, SYNE2 and SUN2 assemble in arrays of transmembrane actin-associated nuclear (TAN) lines which are bound to F-actin cables and couple the nucleus to retrograde actin flow during actin-dependent nuclear movement. May be involved in nucleus-centrososme attachment. During interkinetic nuclear migration (INM) at G2 phase and nuclear migration in neural progenitors its LINC complex association with SUN1/2 and probable association with cytoplasmic dynein-dynactin motor complexes functions to pull the nucleus toward the centrosome; SYNE1 and SYNE2 may act redundantly. During INM at G1 phase mediates respective LINC complex association with kinesin to push the nucleus away from the centrosome. Involved in nuclear migration in retinal photoreceptor progenitors. Required for centrosome migration to the apical cell surface during early ciliogenesis.
Sequence and Domain Family	The KASH domain mediates the nuclear envelope targeting.
Cellular Localization	Nucleus outer membrane Sarcoplasmic reticulum membrane Cell membrane Cytoplasm, cytoskeleton. Mitochondrion. Nucleus, nucleoplasm. Cytoplasm, myofibril, sarcomere, Z line. Different isoform patterns are found in the different compartments of the cell. The isoforms having the C-terminal transmembrane span can be found in several organellar membranes like the nuclear envelope, the sarcoplasmic reticulum of myoblasts, or the lamellipodia and focal adhesions at the cell membrane. The largest part of the outer nuclear membrane-associated protein is cytoplasmic, while its C-terminal part is associated with the nuclear envelope, most probably the outer nuclear membrane. Remains associated with the nuclear envelope during its breakdown in mitotic cells. Shorter solubles isoforms can be found in the cytoplasm and within the nucleus.. Isoform 8: Cell junction, focal adhesion. In U2OS cells.
Post-translational Modifications	The disulfid bond with SUN2 is required for stability of the SUN2:SYNE2/KASH2 LINC complex under tensile forces though not

required for the interaction.