10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

LEMD2 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP19287a

Specification

LEMD2 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q8NC56

LEMD2 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 221496

Other Names
LEM domain-containing protein 2, hLEM2, LEMD2

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

LEMD2 Antibody (N-term) Blocking Peptide - Protein Information

Name LEMD2

Function
Nuclear lamina-associated inner nuclear membrane protein that is involved in nuclear structure organization, maintenance of nuclear envelope (NE) integrity and NE reformation after mitosis (PubMed:16339967, PubMed:17097643, PubMed:28242692, PubMed:32494070). Plays a role as transmembrane adapter for the endosomal sorting complexes required for transport (ESCRT), and is thereby involved in ESCRT-mediated NE reformation (PubMed:28242692, PubMed:32494070). Promotes ESCRT-mediated NE closure by recruiting CHMP7 and downstream ESCRT-III proteins IST1/CHMP8 and CHMP2A to the reforming NE during anaphase (PubMed:28242692). During nuclear reassembly, condenses into a liquid-like coating around microtubule spindles and coassembles with CHMP7 to form a macromolecular O-ring seal at the confluence between membranes, chromatin, and the spindle to facilitate early nuclear sealing (PubMed:32494070). Plays a role in the organization of heterochromatin associated with the NE and in the maintenance of NE

organization under mechanical stress (By similarity). Required for embryonic development and involved in regulation of several signaling pathways such as MAPK and AKT (By similarity). Required for myoblast differentiation involving regulation of ERK signaling (By similarity). Essential for cardiac homeostasis and proper heart function (By similarity).

Cellular Location
Nucleus inner membrane; Multi-pass membrane protein. Nucleus envelope. Cytoplasm, cytoskeleton, spindle. Note=Lamina-associated protein residing in the inner nuclear membrane (INM) of the nuclear envelope (NE) (PubMed:16339967). The localization to the INM is dependent on LMNA (PubMed:16339967). Evenly distributed around the NE during interphase (PubMed:16339967). During metaphase, found in a reticular network (PubMed:28242692). Recruited to the reforming NE on chromatin disks in early anaphase (PubMed:28242692). In late anaphase, concentrates at the NE core proximal to spindle microtubules, and then broadening to a distributed nuclear rim pattern (PubMed:28242692, PubMed:32494070)

Tissue Location
Ubiquitously expressed, including bone marrow, brain, kidney, colon, skeletal muscle, thymus, testis and uterus

LEMD2 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

LEMD2 Antibody (N-term) Blocking Peptide - Images

LEMD2 Antibody (N-term) Blocking Peptide - Background

LEMD2 is involved in nuclear structure organization.

LEMD2 Antibody (N-term) Blocking Peptide - References

Kestenbaum, B., et al. J. Am. Soc. Nephrol. 21(7):1223-1232(2010)Barcellos, L.F., et al. PLoS Genet. 5 (10), E1000696 (2009) :Cotsapas, C., et al. Hum. Mol. Genet. 18(18):3502-3507(2009)