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CLASP2 Blocking Peptide (C-term)

Synthetic peptide
Catalog # BP7181b

Specification

CLASP2 Blocking Peptide (C-term) - Product Information

Primary Accession	O75122
Other Accession	NP_055912

CLASP2 Blocking Peptide (C-term) - Additional Information

Gene ID 23122

Other Names
CLIP-associating protein 2, Cytoplasmic linker-associated protein 2, Protein Orbit homolog 2, hOrbit2, CLASP2, KIAA0627

Target/Specificity
The synthetic peptide sequence is selected from aa 961-975 of HUMAN CLASP2

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.

CLASP2 Blocking Peptide (C-term) - Protein Information

Name CLASP2

Synonyms KIAA0627

Function
Microtubule plus-end tracking protein that promotes the stabilization of dynamic microtubules (PubMed:26003921). Involved in the nucleation of noncentrosomal microtubules originating from the trans-Golgi network (TGN). Required for the polarization of the cytoplasmic microtubule arrays in migrating cells towards the leading edge of the cell. May act at the cell cortex to enhance the frequency of rescue of depolymerizing microtubules by attaching their plus-ends to cortical platforms composed of ERC1 and PHLDB2 (PubMed:16824950). This cortical microtubule stabilizing activity is regulated at least in part by phosphatidylinositol 3-kinase signaling. Also performs a similar stabilizing function at the kinetochore which is essential for the bipolar alignment of chromosomes on the mitotic spindle (PubMed:16866869,

PubMed:16914514). Acts as a mediator of ERBB2- dependent stabilization of microtubules at the cell cortex.

Cellular Location
Cytoplasm, cytoskeleton. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Chromosome, centromere, kinetochore. Cytoplasm, cytoskeleton, spindle. Golgi apparatus {ECO:0000250|UniProtKB:Q8BRT1}. Golgi apparatus, trans-Golgi network. Cell membrane. Cell projection, ruffle membrane. Cytoplasm, cell cortex. Note=Localizes to microtubule plus ends (PubMed:15631994). Localizes to centrosomes, kinetochores and the mitotic spindle from prometaphase. Subsequently localizes to the spindle midzone from anaphase and to the midbody from telophase (PubMed:16866869, PubMed:16914514). In migrating cells localizes to the plus ends of microtubules within the cell body and to the entire microtubule lattice within the lamella. Localizes to the cell cortex and this requires ERC1 and PHLDB2 (PubMed:16824950). Colocalizes with KANK1 at the cell cortex, likely recruited in cortical microtubule stabilization complexes (CMSC) at focal adhesions rims (PubMed:27410476). The MEMO1-RHOA-DIAPH1 signaling pathway controls localization of the phosphorylated form to the cell membrane

Tissue Location
Brain-specific.

CLASP2 Blocking Peptide (C-term) - Protocols

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

- Blocking Peptides

CLASP2 Blocking Peptide (C-term) - Images

CLASP2 Blocking Peptide (C-term) - Background

Microtubule plus-end tracking protein that promotes the stabilization of dynamic microtubules. Required for the polarization of the cytoplasmic microtubule arrays in migrating cells towards the leading edge of the cell. May act at the cell cortex to enhance the frequency of rescue of depolymerizing microtubules by attaching their plus-ends to cortical platforms composed of ERC1 and PHLDB2. This cortical microtubule stabilizing activity is regulated at least in part by phosphatidylinositol 3-kinase signaling. Also performs a similar stabilizing function at the kinetochore which is essential for the bipolar alignment of chromosomes on the mitotic spindle.

CLASP2 Blocking Peptide (C-term) - References

Pereira,A.L., Mol. Biol. Cell 17 (10), 4526-4542 (2006)
Mimori-Kiyosue,Y., Genes Cells 11 (8), 845-857 (2006)
Lansbergen,G., Dev. Cell 11 (1), 21-32 (2006)