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p100 Antibody Blocking Peptide
Synthetic peptide
Catalog # BP2044a

Specification

p100 Antibody Blocking Peptide - Product Information

Primary Accession Q9ULW0

p100 Antibody Blocking Peptide - Additional Information

Gene ID 22974

Other Names
Targeting protein for Xklp2, Differentially expressed in cancerous and non-cancerous lung cells 2, DIL-2, Hepatocellular carcinoma-associated antigen 519, Hepatocellular carcinoma-associated antigen 90, Protein fls353, Restricted expression proliferation-associated protein 100, p100, TPX2, C20orf1, C20orf2, DIL2, HCA519

Target/Specificity
The synthetic peptide sequences used to generate the antibody AP2044a was selected from the C-terminal region with phenylalanine at position 624, C-terminal region with serine at position 729, and center region of human p100. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

p100 Antibody Blocking Peptide - Protein Information

Name TPX2

Synonyms C20orf1, C20orf2, DIL2, HCA519

Function
Spindle assembly factor required for normal assembly of mitotic spindles. Required for normal assembly of microtubules during apoptosis. Required for chromatin and/or kinetochore dependent microtubule nucleation. Mediates AURKA localization to spindle microtubules (PubMed:18663142, PubMed:19208764, PubMed:37728657). Activates

AURKA by promoting its autophosphorylation at 'Thr-288' and protects this residue against dephosphorylation (PubMed:18663142, PubMed:19208764). TPX2 is inactivated upon binding to importin-alpha (PubMed:26165940). At the onset of mitosis, GOLGA2 interacts with importin-alpha, liberating TPX2 from importin-alpha, allowing TPX2 to activates AURKA kinase and stimulates local microtubule nucleation (PubMed:26165940).

Cellular Location
Nucleus. Cytoplasm, cytoskeleton, spindle. Cytoplasm, cytoskeleton, spindle pole. Note=During mitosis it is strictly associated with the spindle pole and with the mitotic spindle, whereas during S and G2, it is diffusely distributed throughout the nucleus. Is released from the nucleus in apoptotic cells and is detected on apoptotic microtubules.

Tissue Location
Expressed in lung carcinoma cell lines but not in normal lung tissues

p100 Antibody Blocking Peptide - Protocols

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

- Blocking Peptides

p100 Antibody Blocking Peptide - Images

p100 Antibody Blocking Peptide - Background

The nuclear protein p100 is a proliferation-associated protein whose expression is restricted to cell cycle phases S, G2, and M. Exclusively expressed in proliferating cells from the transition G1/S until the end of cytokinesis. During mitosis it is strictly associated with the spindle pole and with the mitotic spindle, whereas during S and G2, it is diffusely distributed throughout the nucleus. The full-length cDNA encodes a 747-amino acid protein with a putative ATP/GTP-binding site motif. RT-PCR analysis demonstrated strong expression of in lung carcinoma cell lines but not in normal lung tissues. Expression was also found in adult placenta, skeletal muscle, thymus, testis, and small intestine and in fetal brain, liver, and kidney. P100 is also correlated to cancer prognosis.

p100 Antibody Blocking Peptide - References

Ota, T., et al., Nat. Genet. 36(1):40-45 (2004).Heidebrecht, H.J., et al., Mol. Cancer Res. 1(4):271-279 (2003).Garrett, S., et al., Curr. Biol. 12(23):2055-2059 (2002).Gruss, O.J., et al., Nat. Cell Biol. 4(11):871-879 (2002).Kufer, T.A., et al., J. Cell Biol. 158(4):617-623 (2002).