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Phospho-ESPL1-S748 Antibody Blocking Peptide

Synthetic peptide
Catalog # BP3100a

Specification

Phospho-ESPL1-S748 Antibody Blocking Peptide - Product Information

Primary Accession Q14674

Phospho-ESPL1-S748 Antibody Blocking Peptide - Additional Information

Gene ID 9700

Other Names
Separin, Caspase-like protein ESPL1, Extra spindle poles-like 1 protein, Separase, ESPL1, ESP1, KIAA0165

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP3100a was selected from the region of human Phospho-ESPL1-S748. 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.

Phospho-ESPL1-S748 Antibody Blocking Peptide - Protein Information

Name ESPL1

Synonyms ESP1, KIAA0165

Function
Caspase-like protease, which plays a central role in the chromosome segregation by cleaving the SCC1/RAD21 subunit of the cohesin complex at the onset of anaphase. During most of the cell cycle, it is inactivated by different mechanisms.

Cellular Location
Cytoplasm. Nucleus.

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Phospho-ESPL1-S748 Antibody Blocking Peptide - Protocols

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

- Blocking Peptides

Phospho-ESPL1-S748 Antibody Blocking Peptide - Images

Phospho-ESPL1-S748 Antibody Blocking Peptide - Background

ESPL1 is a caspase-like protease, which plays a central role in the chromosome segregation by cleaving the SCC1/RAD21 subunit of the cohesin complex at the onset of anaphase. During most of the cell cycle, it is inactivated by different mechanisms. ESPL1 is regulated by at least two independent mechanisms. First, it is inactivated via its interaction with securin/PTTG1, which probably covers its active site. The association with PTTG1 is not only inhibitory, since PTTG1 is also required for activating it, the enzyme being inactive in cells in which PTTG1 is absent. PTTG1 degradation at anaphase, liberates it and triggers RAD21 cleavage. Second, phosphorylation at Ser-1126 inactivates it. The complete phosphorylation during mitosis, is removed when cells undergo anaphase. Activation of the enzyme at the metaphase-anaphase transition probably requires the removal of both securin and inhibitory phosphate.

Phospho-ESPL1-S748 Antibody Blocking Peptide - References

Beausoleil, S.A., et al., Proc. Natl. Acad. Sci. U.S.A. 101(33):12130-12135 (2004).Chestukhin, A., et al., Proc. Natl. Acad. Sci. U.S.A. 100(8):4574-4579 (2003).Chen, F., et al., J. Biol. Chem. 277(19):16775-16781 (2002).Waizenegger, I., et al., Curr. Biol. 12(16):1368-1378 (2002).Hauf, S., et al., Science 293(5533):1320-1323 (2001).