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# SAK Antibody (C-term) Blocking Peptide

**Synthetic peptide**
**Catalog # BP7946a**

## Specification

### SAK Antibody (C-term) Blocking Peptide - Product Information

Primary Accession O00444

### SAK Antibody (C-term) Blocking Peptide - Additional Information

**Gene ID** 10733

**Other Names**
Serine/threonine-protein kinase PLK4, Polo-like kinase 4, PLK-4, Serine/threonine-protein kinase 18, Serine/threonine-protein kinase Sak, PLK4, SAK, STK18

**Target/Specificity**
The synthetic peptide sequence used to generate the antibody <a href=/product/products/AP7946a>AP7946a</a> was selected from the C-term region of human SAK . 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.

### SAK Antibody (C-term) Blocking Peptide - Protein Information

**Name** PLK4 (HGNC:11397)

**Synonyms** SAK, STK18

**Function**
Serine/threonine-protein kinase that plays a central role in centriole duplication. Able to trigger procentriole formation on the surface of the parental centriole cylinder, leading to the recruitment of centriole biogenesis proteins such as SASS6, CPAP, CCP110, CEP135 and gamma-tubulin. When overexpressed, it is able to induce centrosome amplification through the simultaneous generation of multiple procentrioles adjoining each parental centriole during S phase. Phosphorylates 'Ser-151' of FBXW5 during the G1/S transition, leading to inhibit FBXW5 ability to ubiquitinate SASS6. Its central role in centriole replication suggests a possible role in tumorigenesis, centrosome aberrations being frequently observed in tumors. Also involved in deuterosome-mediated centriole amplification in multiciliated that can generate more than 100

centrioles. Also involved in trophoblast differentiation by phosphorylating HAND1, leading to disrupt the interaction between HAND1 and MDFIC and activate HAND1. Phosphorylates CDC25C and CHEK2. Required for the recruitment of STIL to the centriole and for STIL-mediated centriole amplification (PubMed:<a href="http://www.uniprot.org/citations/22020124" target="_blank">22020124</a>). Phosphorylates CEP131 at 'Ser-78' and PCM1 at 'Ser- 372' which is essential for proper organization and integrity of centriolar satellites (PubMed:<a href="http://www.uniprot.org/citations/30804208" target="_blank">30804208</a>).

**Cellular Location**
Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole. Nucleus, nucleolus {ECO:0000250|UniProtKB:Q64702}. Cleavage furrow {ECO:0000250|UniProtKB:Q64702}. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Note=Component of the deuterosome, a structure that promotes de novo centriole amplification in multiciliated cells that can generate more than 100 centrioles Associates with centrioles throughout the cell cycle. According to PubMed:16244668, it is not present at cleavage furrows

## SAK Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

## SAK Antibody (C-term) Blocking Peptide - Images

## SAK Antibody (C-term) Blocking Peptide - Background

SAK is involved in regulation of cell cycle. SAK is a key regulator of centriole duplication.

## SAK Antibody (C-term) Blocking Peptide - References

Yamashita, Y., et al., J. Biol. Chem. 276(42):39012-39020 (2001).Hudson, J.W., et al., Gene 241(1):65-73 (2000).