

**CSNK1A1 Antibody (C-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP7400a****Specification**

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**CSNK1A1 Antibody (C-term) Blocking peptide - Product Information**Primary Accession [P48729](#)**CSNK1A1 Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 1452**Other Names**

Casein kinase I isoform alpha, CKI-alpha, CK1, CSNK1A1

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP7400a](#) was selected from the C-term region of human CK1a . 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.

**CSNK1A1 Antibody (C-term) Blocking peptide - Protein Information****Name** CSNK1A1**Function**

Casein kinases are operationally defined by their preferential utilization of acidic proteins such as caseins as substrates (PubMed:[11955436](http://www.uniprot.org/citations/11955436), PubMed:[1409656](http://www.uniprot.org/citations/1409656), PubMed:[18305108](http://www.uniprot.org/citations/18305108), PubMed:[23902688](http://www.uniprot.org/citations/23902688)). It can phosphorylate a large number of proteins (PubMed:[11955436](http://www.uniprot.org/citations/11955436), PubMed:[1409656](http://www.uniprot.org/citations/1409656), PubMed:[18305108](http://www.uniprot.org/citations/18305108), PubMed:[23902688](http://www.uniprot.org/citations/23902688)). Participates in Wnt signaling (PubMed:[11955436](http://www.uniprot.org/citations/11955436)). Phosphorylates CTNNB1 at 'Ser-45' (PubMed:[11955436](http://www.uniprot.org/citations/11955436)). May

phosphorylate PER1 and PER2 (By similarity). May play a role in segregating chromosomes during mitosis (PubMed:<a href="http://www.uniprot.org/citations/1409656" target="\_blank">1409656</a>). May play a role in keratin cytoskeleton disassembly and thereby, it may regulate epithelial cell migration (PubMed:<a href="http://www.uniprot.org/citations/23902688" target="\_blank">23902688</a>). Acts as a positive regulator of mTORC1 and mTORC2 signaling in response to nutrients by mediating phosphorylation of DEPTOR inhibitor (PubMed:<a href="http://www.uniprot.org/citations/22017875" target="\_blank">22017875</a>, PubMed:<a href="http://www.uniprot.org/citations/22017877" target="\_blank">22017877</a>). Acts as an inhibitor of NLRP3 inflammasome assembly by mediating phosphorylation of NLRP3 (By similarity).

#### Cellular Location

Cytoplasm. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Chromosome, centromere, kinetochore. Nucleus speckle. Cytoplasm, cytoskeleton, cilium basal body {ECO:0000250|UniProtKB:Q8BK63}. Cytoplasm, cytoskeleton, spindle {ECO:0000250|UniProtKB:Q8BK63}. Note=Localizes to the centrosome in interphase cells, and to kinetochore fibers during mitosis. Also recruited to the keratin cytoskeleton (PubMed:23902688)

#### CSNK1A1 Antibody (C-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

#### CSNK1A1 Antibody (C-term) Blocking peptide - Images

#### CSNK1A1 Antibody (C-term) Blocking peptide - Background

Casein kinases are operationally defined by their preferential utilization of acidic proteins such as caseins as substrates. CK1a can phosphorylate a large number of proteins. This cytoplasmic protein participates in Wnt signaling. It has been demonstrated to phosphorylate CTNNB1 on Ser-45 and to interact with the Axin complex.

#### CSNK1A1 Antibody (C-term) Blocking peptide - References

Liu, C., et al., Cell 108(6):837-847 (2002).Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).Fish, K.J., et al., J. Biol. Chem. 270(25):14875-14883 (1995).Tapia, C., et al., FEBS Lett. 349(2):307-312 (1994).

#### CSNK1A1 Antibody (C-term) Blocking peptide - Citations

- [Casein kinase I epsilon interacts with mitochondrial proteins for the growth and survival of human ovarian cancer cells.](#)