10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CSNK1A1 Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP7400a

Specification

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 <a >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:18305108, PubMed:11955436, PubMed:1409656, PubMed:23902688). It can phosphorylate a large number of proteins (PubMed:18305108, PubMed:11955436, PubMed:1409656, PubMed:23902688). Participates in Wnt signaling (PubMed:11955436). Phosphorylates CTNNB1 at 'Ser-45' (PubMed:11955436). May

phosphorylate PER1 and PER2 (By similarity). May play a role in segregating chromosomes during mitosis (PubMed:1409656). May play a role in keratin cytoskeleton disassembly and thereby, it may regulate epithelial cell migration (PubMed:23902688). Acts as a positive regulator of mTORC1 and mTORC2 signaling in response to nutrients by mediating phosphorylation of DEPTOR inhibitor (PubMed:22017875, PubMed:22017877). 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.