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

CSNK1A1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7400a

Specification

CSNK1A1 Antibody (C-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	P48729
Other Accession	P67963, P67962
Reactivity	**Human**
Predicted	**Chicken, Xenopus**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**309-337**

CSNK1A1 Antibody (C-term) - Additional Information

Gene ID 1452

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

Target/Specificity
This CSNK1A1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 309-337 amino acids from the C-terminal region of human CSNK1A1.

Dilution
WB~~1:1000
IHC-P~~1:10~50
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
CSNK1A1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

CSNK1A1 Antibody (C-term) - Protein Information

Name CSNK1A1

Function Casein kinases are operationally defined by their preferential utilization of acidic proteins such as caseins as substrates (PubMed:11955436, PubMed:1409656, PubMed:18305108, PubMed:23902688). It can phosphorylate a large number of proteins (PubMed:11955436, PubMed:1409656, PubMed:18305108, 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).

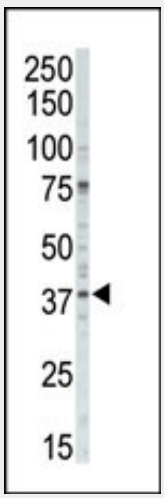
Cellular Location
Cytoplasm. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Chromosome, centromere, kinetochore. Nucleus speckle. Cytoplasm, cytoskeleton, cilium basal body {ECO:0000250|UniProtKB:Q8BK63}. Cytoplasm, cytoskeleton, spindle {ECO:0000250|UniProtKB:Q8BK63}. Note=Localizes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

CSNK1A1 Antibody (C-term) - Protocols

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

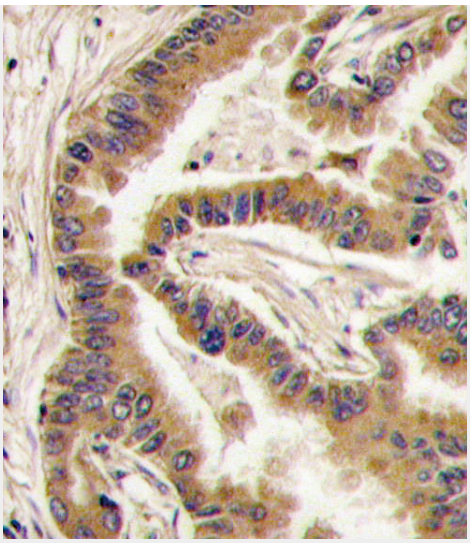
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CSNK1A1 Antibody (C-term) - Images



Western blot analysis of anti-CK1a Pab (Cat. #AP7400a) in A375 cell lysate. CK1a (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.

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



Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with CK1a antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

CSNK1A1 Antibody (C-term) - 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) - 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) - Citations

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