

Casein Kinase I α Polyclonal Antibody

Catalog # AP68828

Product Information

Application	WB, IHC-P, IF
Primary Accession	P48729
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	38915

Additional Information

Gene ID	1452
Other Names	CSNK1A1; Casein kinase I isoform alpha; CKI-alpha; CK1
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications. IHC-P~~N/A IF~~1:50~200
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20°C

Protein Information

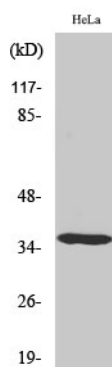
Name	CSNK1A1
Function	<p>Casein kinases are operationally defined by their preferential utilization of acidic proteins such as caseins as substrates (PubMed:11955436, PubMed:1409656, PubMed:18305108, PubMed:23902688). It can phosphorylate a large number of proteins (PubMed:11955436, PubMed:1409656, PubMed:18305108, 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).</p>
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)

Background

Casein kinases are operationally defined by their preferential utilization of acidic proteins such as caseins as substrates. It can phosphorylate a large number of proteins. Participates in Wnt signaling. Phosphorylates CTNNB1 at 'Ser-45'. May phosphorylate PER1 and PER2. May play a role in segregating chromosomes during mitosis (PubMed:[11955436](#), PubMed:[1409656](#), PubMed:[18305108](#)). May play a role in keratin cytoskeleton disassembly and thereby, it may regulate epithelial cell migration (PubMed:[23902688](#)).

Images



Western Blot analysis of various cells using Casein Kinase Iα Polyclonal Antibody

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.