

Casein Kinase I α (phospho Tyr294) rabbit pAb**Cat#: orb767732 (Manual)**

For research use only. Not intended for diagnostic use.

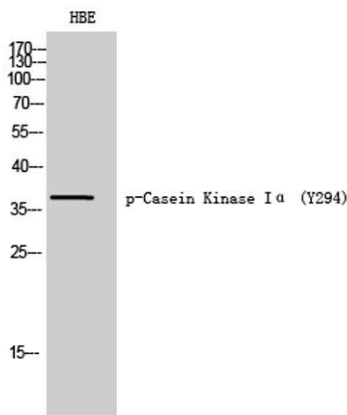
Product Name	Casein Kinase I α (phospho Tyr294) rabbit pAb
Host species	Rabbit
Applications	WB;IHC;IF;ELISA
Species Cross-Reactivity	Human;Mouse;Rat
Recommended dilutions	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/10000. Not yet tested in other applications.
Immunogen	The antiserum was produced against synthesized peptide derived from human CK-1 alpha around the phosphorylation site of Tyr294. AA range:260-309
Specificity	Phospho-Casein Kinase I α (Y294) Polyclonal Antibody detects endogenous levels of Casein Kinase I α protein only when phosphorylated at Y294.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide..
Storage	Store at -20°C. Avoid repeated freeze-thaw cycles.
Protein Name	Casein kinase I isoform alpha
Gene Name	CSNK1A1
Cellular localization	Cytoplasm . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Chromosome, centromere, kinetochore . Nucleus speckle . Cytoplasm, cytoskeleton, cilium basal body . Cytoplasm, cytoskeleton, spindle . Localizes to the centrosome in interphase cells, and to kinetochore fibers during mitosis. Also recruited to the keratin cytoskeleton (PubMed:23902688)..

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Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Clonality	Polyclonal
Concentration	1 mg/ml
Observed band	37kD
Human Gene ID	1452/122011
Human Swiss-Prot Number	P48729/Q8N752
Alternative Names	CSNK1A1; Casein kinase I isoform alpha; CKI-alpha; CK1; CSNK1A1L; Casein kinase I isoform alpha-like; CKI-alpha-like; CK1

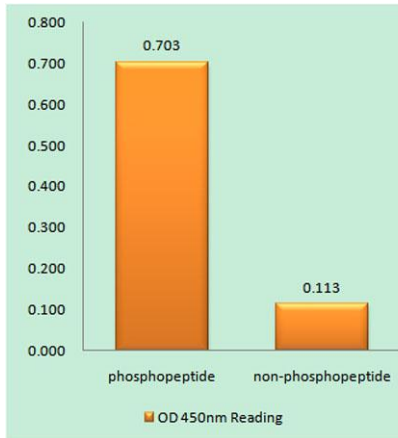
Background

CSNK1A1 (Casein Kinase 1 Alpha 1) is a Protein Coding gene. Among its related pathways are Signaling by GPCR and Infectious disease. GO annotations related to this gene include transferase activity, transferring phosphorus-containing groups and protein tyrosine kinase activity. An important paralog of this gene is CSNK1G2. 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). Casein kinase I (CK1) is a monomeric serine-threonine protein kinase with 7 isoforms: alpha, beta, gamma1, gamma2, gamma3, delta and epsilon. CK1 is involved in many cellular processes including DNA repair, cell division, nuclear localization and membrane transport. Isoforms are also integral to development.

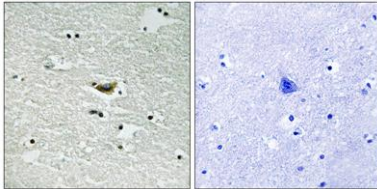


Western Blot analysis of HBE cells using Phospho-Casein Kinase Iα (Y294) Polyclonal Antibody diluted at 1:1000

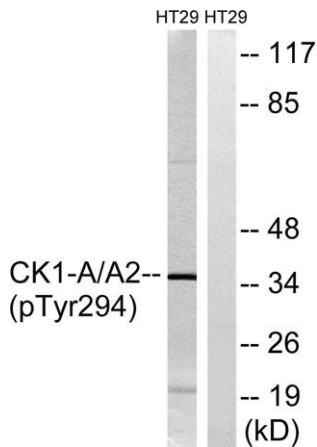
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Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using CK-1 alpha (Phospho-Tyr294) Antibody



Immunohistochemistry analysis of paraffin-embedded human brain, using CK-1 alpha (Phospho-Tyr294) Antibody. The picture on the right is blocked with the phosphopeptide.



Western blot analysis of lysates from HT29 cells treated with heat shock, using CK-1 alpha (Phospho-Tyr294) Antibody. The lane on the right is blocked with the phosphopeptide.