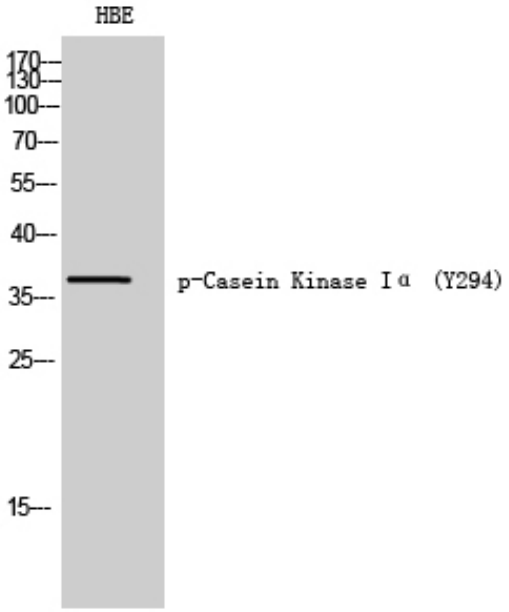
Casein Kinase Iα (phospho Tyr294) Polyclonal Antibody

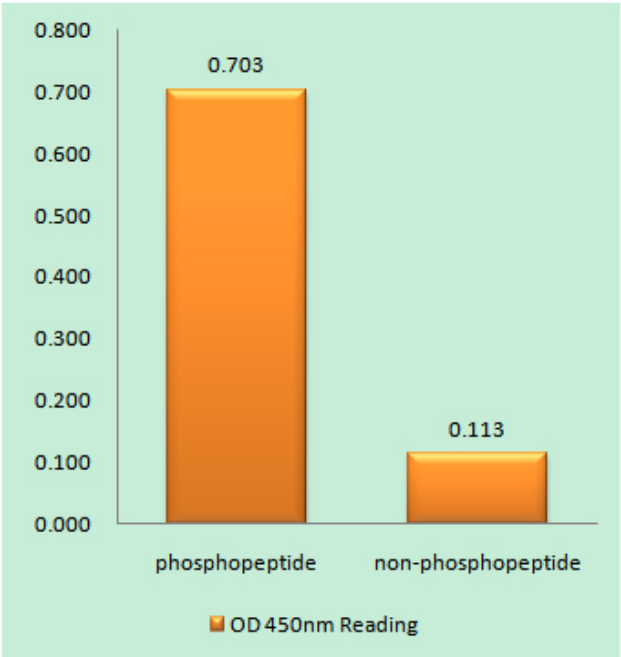
Catalog No	YP-Ab-14489
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	CSNK1A1
Protein Name	Casein kinase I isoform alpha
Immunogen	The antiserum was produced against synthesized peptide derived from human CK-1 alpha around the phosphorylation site of Tyr294. AA range:260-309
Specificity	Phospho-Casein Kinase Iα (Y294) Polyclonal Antibody detects endogenous levels of Casein Kinase Iα protein only when phosphorylated at Y294.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/10000.. IF 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	CSNK1A1; Casein kinase I isoform alpha; CKI-alpha; CK1; CSNK1A1L; Casein kinase I isoform alpha-like; CKI-alpha-like; CK1
Observed Band	37kD
Cell Pathway	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). .
Tissue Specificity	Brain,Epithelium,Liver,Lung,Placenta,Skin,
Function	catalytic activity:ATP + a protein = ADP + a phosphoprotein.,function: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 on 'Ser-45'.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. CK1 Ser/Thr protein kinase family. Casein kinase I subfamily.,similarity:Contains 1 protein kinase domain.,subunit:Monomer. Interacts with the Axin complex.,

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. asein 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). asein 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.
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

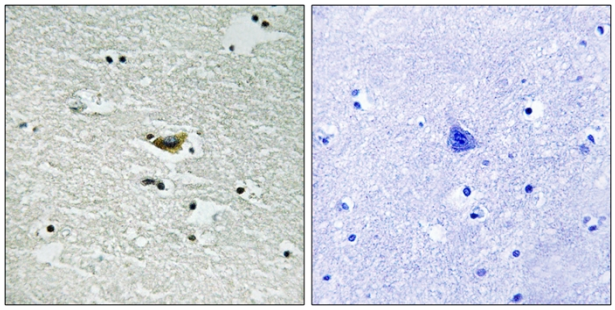
Products Images



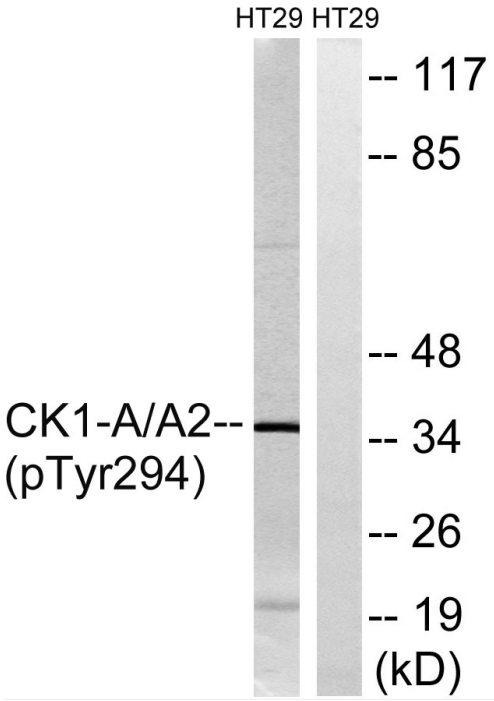
Western Blot analysis of HBE cells using Phospho-Casein Kinase Iα (Y294) Polyclonal Antibody diluted at 1:1000



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 phospho peptide.



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 phospho peptide.