

Casein Kinase Iα (phospho Tyr294) Polyclonal Antibody

Catalog No :	YP0782
Reactivity :	Human;Mouse;Rat
Applications :	WB;IHC;IF;ELISA
Target :	Casein Kinase Iα
Fields :	>>Wnt signaling pathway;>>Hedgehog signaling pathway;>>Alzheimer disease;>>Pathways of neurodegeneration - multiple diseases;>>Human papillomavirus infection;>>Breast cancer;>>Hepatocellular carcinoma;>>Gastric cancer
Gene Name :	CSNK1A1
Protein Name :	Casein kinase I isoform alpha
Human Gene Id :	1452/122011
Human Swiss Prot No :	P48729/Q8N752
Rat Gene Id :	113927
Rat Swiss Prot No :	P97633
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
Dilution :	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:10000.. IF 1:50-200
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration : 1 mg/ml

Storage Stability : -15°C to -25°C/1 year (Do not lower than -25°C)

Observed Band : 37kD

Cell Pathway : WNT;WNT-T CELLHedgehog;

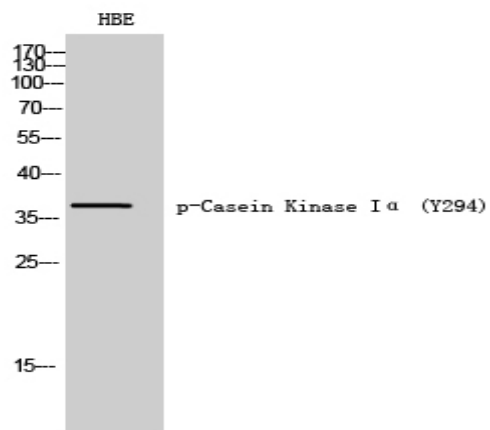
Background : CSNK1A1 (Casein Kinase 1 Alpha 1) is a Protein Coding gene. Among its related pathways are Signaling by GPCR and Infectious disease. GO annotations related to this gene include transferase activity, transferring phosphorus-containing groups and protein tyrosine kinase activity. An important 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.

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.,

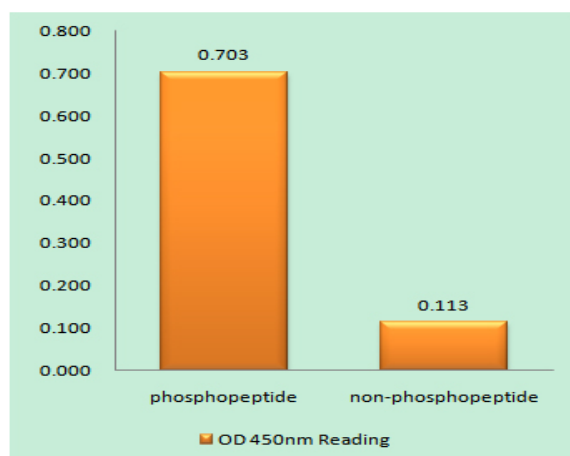
Subcellular Location : Cytoplasm . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Chromosome, centromere, kinetochore . Nucleus speckle . Cytoplasm, cytoskeleton, cilium basal body . Cytoplasm, cytoskeleton, spindle . Localizes to the centrosome in interphase cells, and to kinetochore fibers during mitosis. Also recruited to the keratin cytoskeleton (PubMed:23902688). .

Expression : Brain,Epithelium,Liver,Lung,Placenta,Skin,

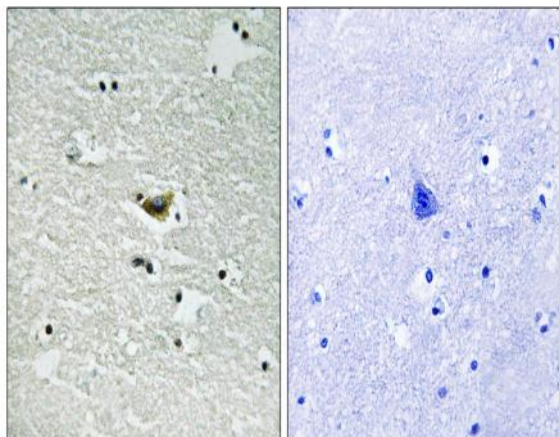
Products Images



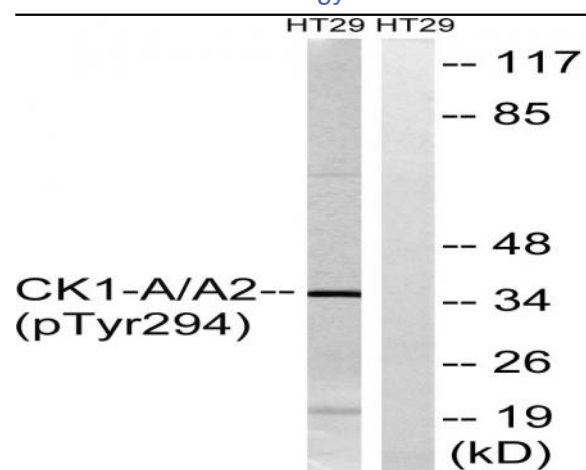
Western Blot analysis of HBE cells using Phospho-Casein Kinase Iα (Y294) Polyclonal Antibody diluted at 1:1000



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.