

Product name:	Casein Kinase Iδ Rabbit Polyclonal Antibody
Cat number:	ABN07946
Conjugate:	Unconjugated
Size:	100μL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human CSNK1D. AA range:291-340
Reactivity:	Human,Mouse,Rat
Applications:	WB 1:500-1:2000,ELISA 1:20000-1:40000
Molecular Weight:	47kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

This gene is a member of the casein kinase I (CKI) gene family whose members have been implicated in the control of cytoplasmic and nuclear processes, including DNA replication and repair. The encoded protein may also be involved in the regulation of apoptosis, circadian rhythm, microtubule dynamics, chromosome segregation, and p53-mediated effects on growth. The encoded protein is highly similar to the mouse and rat CK1 delta homologs. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2014], catalytic activity: ATP + a protein = ADP + a phosphoprotein., disease: Defects in CSNK1D are a cause of familial advanced sleep-phase syndrome (FASPS) [MIM:604348]. FASPS is characterized by very early sleep onset and offset. Individuals are 'morning larks' with a 4 hours advance of the sleep, temperature and melatonin rhythms., enzyme regulation: Exhibits substrate-dependent heparin activation., 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. Central component of the circadian clock. May act as a negative regulator of circadian rhythmicity by phosphorylating PER1 and PER2. Retains PER1 in the cytoplasm., PTM: Autophosphorylated on serine and threonine residues., 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. Component of the circadian core oscillator, which includes the CRY proteins, CLOCK, or NPAS2, BMAL1 or BMAL2, CSNK1D and/or CSNK1E, TIMELESS and the PER proteins. Interacts directly with PER1 and PER2 which may lead to their degradation., tissue specificity: Expressed in all tissues examined, including brain, heart, lung, liver, pancreas, kidney, placenta and skeletal muscle. In blood, highly expressed in hemopoietic cells and mature granulocytes. Also found in monocytes and lymphocytes.,