



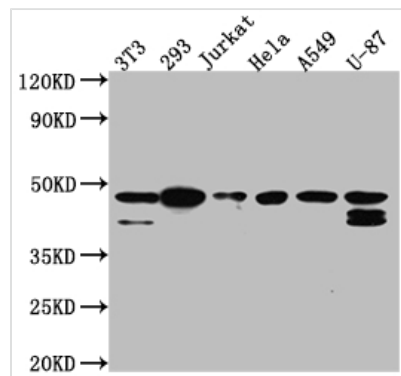
CSNK2A1 Antibody

Product Code	CSB-RA964915A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P68400
Immunogen	A synthesized peptide derived from human CKII alpha
Species Reactivity	Human, Mouse
Tested Applications	ELISA, WB; Recommended dilution: WB:1:500-1:5000
Relevance	<p>Catalytic subunit of a constitutively active serine/threonine-protein kinase complex that phosphorylates a large number of substrates containing acidic residues C-terminal to the phosphorylated serine or threonine. Regulates numerous cellular processes, such as cell cycle progression, apoptosis and transcription, as well as viral infection. May act as a regulatory node which integrates and coordinates numerous signals leading to an appropriate cellular response. During mitosis, functions as a component of the p53/TP53-dependent spindle assembly checkpoint (SAC) that maintains cyclin-B-CDK1 activity and G2 arrest in response to spindle damage. Also required for p53/TP53-mediated apoptosis, phosphorylating 'Ser-392' of p53/TP53 following UV irradiation. Can also negatively regulate apoptosis. Phosphorylates the caspases CASP9 and CASP2 and the apoptotic regulator NOL3. Phosphorylation protects CASP9 from cleavage and activation by CASP8, and inhibits the dimerization of CASP2 and activation of CASP8. Regulates transcription by direct phosphorylation of RNA polymerases I, II, III and IV. Also phosphorylates and regulates numerous transcription factors including NF-kappa-B, STAT1, CREB1, IRF1, IRF2, ATF1, SRF, MAX, JUN, FOS, MYC and MYB. Phosphorylates Hsp90 and its co-chaperones FKBP4 and CDC37, which is essential for chaperone function. Regulates Wnt signaling by phosphorylating CTNNB1 and the transcription factor LEF1. Acts as an ectokinase that phosphorylates several extracellular proteins. During viral infection, phosphorylates various proteins involved in the viral life cycles of EBV, HSV, HBV, HCV, HIV, CMV and HPV. Phosphorylates PML at 'Ser-565' and primes it for ubiquitin-mediated degradation. Plays an important role in the circadian clock function by phosphorylating ARNTL/BMAL1 at 'Ser-90' which is pivotal for its interaction with CLOCK and which controls CLOCK nuclear entry (PubMed:11239457, PubMed:11704824, PubMed:16193064, PubMed:19188443, PubMed:20625391, PubMed:22406621). Phosphorylates CCAR2 at 'Thr-454' in gastric carcinoma tissue (PubMed:24962073).</p>
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG



Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Cell biology; Signal transduction
Gene Names	CSNK2A1
Accession NO.	2B6

Image



Western Blot

Positive WB detected in: NIH/3T3 whole cell lysate, 293 whole cell lysate, Jurkat whole cell lysate, HeLa whole cell lysate, A549 whole cell lysate, U-87 whole cell lysate

All lanes: CKII alpha antibody at 1:1000

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 46, 30 kDa

Observed band size: 45 kDa

Description

CSNK2A1 is the subunit of the Casein kinase II (CSNK2). The expression and kinase activity of CSNK2A1 is higher in malignant tumor cells than in normal counterpart cells, and it has been suggested that CSNK2A1 plays a tumorigenic role in breast, lung, kidney, colorectal, and prostate cancers. CSNK2A1 has been found to be related to the invasion and migration of various cancer cells through epithelial-mesenchymal transition (EMT)²⁴ and nuclear factor-kappa B (NF- κ B) signaling pathways. Positive expression of CSNK2A1 predicts a shorter overall survival and relapse-free survival for several cancers.

The production of this recombinant CSNK2A1 antibody started with identifying and cloning the genes for antibody expression. After the CSNK2A1 antibody was cloned into an expression plasmid, the plasmid could be introduced into the mammalian cell to produce the target recombinant antibody. This recombinant CSNK2A1 antibody has been validated in ELISA, WB.