

ARG51843 anti-CK2 alpha phospho (Thr360 / Ser362) antibody

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes CK2 alpha phospho (Thr360 / Ser362)
Tested Reactivity	Hu, Ms, Rat
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	CK2 alpha
Species	Human
Immunogen	Peptide sequence around phosphorylation site of threonine360/serine 362 (V-P-T(p)-P-S(p)-P-L) derived from Human CK2α.
Conjugation	Un-conjugated
Alternate Names	CKII; CK2A1; Casein kinase II subunit alpha; EC 2.7.11.1; CSNK2A3; CK II alpha

Application Instructions

Application table	Application	Dilution
	WB	1:500 - 1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Observed Size	~40-50 kDa	

Properties

Form	Liquid
Purification	Antibodies were produced by immunizing rabbits with KLH-conjugated synthetic phosphopeptide. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. In addition, non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
Buffer	PBS (without Mg2+ and Ca2+, pH 7.4), 150mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note	For laboratory research only, not for drug, diagnostic or other use.
Bioinformation	
Gene Symbol	CSNK2A1
Gene Full Name	casein kinase 2, alpha 1 polypeptide
Background	Casein kinases are operationally defined by their preferential utilization of acidic proteins such as caseins as substrates. The alpha and alpha' chains contain the catalytic site. Participates in Wnt signaling. CK2 phosphorylates 'Ser-392' of p53/TP53 following UV irradiation.
Function	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. [UniProt]
Research Area	Cell Biology and Cellular Response antibody; Cell Death antibody; Gene Regulation antibody; Signaling Transduction antibody
Calculated Mw	45 kDa
PTM	Phosphorylated at Thr-344, Thr-360, Ser-362 and Ser-370 by CDK1 in prophase and metaphase and dephosphorylated during anaphase. Phosphorylation does not directly affect casein kinase 2 activity, but may contribute to its regulation by forming binding sites for interacting proteins and/or targeting it to different compartments.

Images

CK2

WT

T360A

S362A

T360/S362A

ERK2

-

+

-

+

-

+

-

+

CK2α(pThr360/Ser362)

CK2α

ARG51843 anti-CK2 alpha phospho (Thr360 / Ser362) antibody WB image

Western blot: ARG51843 anti-CK2 alpha phospho (Thr360 / Ser362) antibody and CK2a antibody in vitro kinase assay. Both purified ERK2 and CK2a were used. CK2a(Phospho-Thr360/Ser362) antibody could recognize ERK2 phosphorylated wild type CK2a and CK2a when Ser362 was mutated to alanine .