

Anti-CSNK2A2 Antibody

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS18556

Product Information

Application	WB, IHC-P, E
Primary Accession	P19784
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	41213
Concentration (mg/ml)	1 mg/ml

Additional Information

Gene ID	1459
Alias Symbol Other Names	CSNK2A2 CSNK2A2, CASEIN KINASE II ALPHA', Casein kinase II subunit alpha, Ck2alpha', Casein kinase 2 alpha', CK2A2, CK II alpha
Target/Specificity	Human CSNK2A2
Reconstitution & Storage	Caprylic acid and ammonium sulfate precipitation
Precautions	Anti-CSNK2A2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CSNK2A2
Synonyms	CK2A2
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 (PubMed: 11239457 , PubMed: 11704824 , PubMed: 16193064 , PubMed: 30898438). Regulates numerous cellular processes, such as cell cycle progression, apoptosis and transcription, as well as viral infection (PubMed: 11704824 , PubMed: 16193064 , PubMed: 30898438). May act as a regulatory node which integrates and coordinates numerous signals leading to an appropriate cellular response (PubMed: 12631575 , PubMed: 19387551 , PubMed: 19387552). 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 (PubMed:[12631575](#), PubMed:[19387551](#), PubMed:[19387552](#)). Also required for p53/TP53-mediated apoptosis, phosphorylating 'Ser-392' of p53/TP53 following UV irradiation (PubMed:[11239457](#)). Phosphorylates a number of DNA repair proteins in response to DNA damage, such as MDC1, RAD9A, RAD51 and HTATSF1, promoting their recruitment to DNA damage sites (PubMed:[20545769](#), PubMed:[21482717](#), PubMed:[22325354](#), PubMed:[26811421](#), PubMed:[30898438](#), PubMed:[35597237](#)). Can also negatively regulate apoptosis (PubMed:[19387551](#), PubMed:[19387552](#)). Phosphorylates the caspases CASP9 and CASP2 and the apoptotic regulator NOL3 (PubMed:[12631575](#), PubMed:[19387551](#), PubMed:[19387552](#)). Phosphorylation protects CASP9 from cleavage and activation by CASP8, and inhibits the dimerization of CASP2 and activation of CASP8 (PubMed:[12631575](#), PubMed:[19387551](#), PubMed:[19387552](#)). Regulates transcription by direct phosphorylation of RNA polymerases I, II, III and IV (PubMed:[12631575](#), PubMed:[19387551](#), PubMed:[19387552](#)). Also phosphorylates and regulates numerous transcription factors including NF-kappa-B, STAT1, CREB1, IRF1, IRF2, ATF1, SRF, MAX, JUN, FOS, MYC and MYB (PubMed:[12631575](#), PubMed:[19387551](#), PubMed:[19387552](#)). Phosphorylates Hsp90 and its co-chaperones FKBP4 and CDC37, which is essential for chaperone function (PubMed:[19387550](#)). Regulates Wnt signaling by phosphorylating CTNNB1 and the transcription factor LEF1 (PubMed:[19387549](#)). Acts as an ectokinase that phosphorylates several extracellular proteins (PubMed:[12631575](#), PubMed:[19387551](#), PubMed:[19387552](#)). During viral infection, phosphorylates various proteins involved in the viral life cycles of EBV, HSV, HBV, HCV, HIV, CMV and HPV (PubMed:[12631575](#), PubMed:[19387551](#), PubMed:[19387552](#)). May phosphorylate histone H2A on 'Ser-1' (PubMed:[38334665](#)).

Cellular Location

Nucleus {ECO:0000250|UniProtKB:O54833}. Cytoplasm {ECO:0000250|UniProtKB:O54833}. Note=Interaction with SIRT6 prevents translocation into the nucleus. {ECO:0000250|UniProtKB:O54833}

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