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Mouse Csnk2a2 Antibody (N-term) Blocking peptide

Synthetic peptide
Catalog # BP13804a

Specification

Mouse Csnk2a2 Antibody (N-term) Blocking peptide - Product Information

Primary Accession O54833

Mouse Csnk2a2 Antibody (N-term) Blocking peptide - Additional Information

Gene ID 13000

Other Names
Casein kinase II subunit alpha', CK II alpha', Csnk2a2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP13804a was selected from the N-term region of Mouse Csnk2a2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Mouse Csnk2a2 Antibody (N-term) Blocking peptide - Protein Information

Name Csnk2a2

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. 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. 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.

Cellular Location
Nucleus. Cytoplasm. Note=Interaction with SIRT6 prevents translocation into the nucleus.

Tissue Location
Highly expressed in brain, testis and mature epididymal spermatozoa. Weakly expressed in kidney, liver, lung, spleen and thymus (at protein level).

Mouse Csnk2a2 Antibody (N-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

Mouse Csnk2a2 Antibody (N-term) Blocking peptide - Images

Mouse Csnk2a2 Antibody (N-term) Blocking peptide - 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-389' of p53/TP53 following UV irradiation (By similarity).

Mouse Csnk2a2 Antibody (N-term) Blocking peptide - References

Pastori, V., et al. Biochim. Biophys. Acta 1802 (7-8), 583-592 (2010) :Cobb, L.J., et al. Mol. Endocrinol. 23(10):1624-1633(2009)Mueller, T., et al. Hum. Mol. Genet. 18(17):3334-3343(2009)Maier, B., et al. Genes Dev. 23(6):708-718(2009)Kang, H., et al. PLoS ONE 4 (8), E6611 (2009) :