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Mouse Csnk1d Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP14707c

Specification

Mouse Csnk1d Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q9DC28

Mouse Csnk1d Antibody (Center) Blocking Peptide - Additional Information

Gene ID 104318

Other Names
Casein kinase I isoform delta, CKI-delta, CKId, Tau-protein kinase CSNK1D, Csnk1d, Hckid

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 Csnk1d Antibody (Center) Blocking Peptide - Protein Information

Name Csnk1d

Synonyms Hckid

Function
Essential serine/threonine-protein kinase that regulates diverse cellular growth and survival processes including Wnt signaling, DNA repair and circadian rhythms. It can phosphorylate a large number of proteins. Casein kinases are operationally defined by their preferential utilization of acidic proteins such as caseins as substrates. Phosphorylates connexin-43/GJA1, MAP1A, SNAPIN, MAPT/TAU, TOP2A, DCK, HIF1A, EIF6, p53/TP53, DVL2, DVL3, ESR1, AIB1/NCOA3, DNMT1, PKD2, YAP1, PER1 and PER2. Central component of the circadian clock. In balance with PP1, determines the circadian period length through the regulation of the speed and rhythmicity of PER1 and PER2 phosphorylation. Controls PER1 and PER2 nuclear transport and degradation. YAP1 phosphorylation promotes its SCF(beta-TRCP) E3 ubiquitin ligase-mediated ubiquitination and subsequent degradation. DNMT1 phosphorylation reduces its DNA-binding activity. Phosphorylation of ESR1 and AIB1/NCOA3 stimulates their activity and coactivation. Phosphorylation of DVL2 and DVL3 regulates WNT3A signaling pathway that controls neurite outgrowth. Phosphorylates NEDD9/HEF1 (PubMed:29191835). EIF6 phosphorylation promotes its nuclear export. Triggers down-regulation of dopamine receptors in the forebrain. Activates DCK in vitro by phosphorylation. TOP2A phosphorylation favors DNA

cleavable complex formation. May regulate the formation of the mitotic spindle apparatus in extravillous trophoblast. Modulates connexin-43/GJA1 gap junction assembly by phosphorylation. Probably involved in lymphocyte physiology. Regulates fast synaptic transmission mediated by glutamate.

Cellular Location
Cytoplasm. Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, perinuclear region. Cell membrane. Cytoplasm, cytoskeleton, spindle. Golgi apparatus Note=Localized at mitotic spindle microtubules, and at the centrosomes and interphase in interphase cells. Recruited to the spindle apparatus and the centrosomes in response to DNA-damage. Correct subcellular localization requires kinase activity (By similarity).

Tissue Location
Expressed ubiquitously. However, kinase activity is not uniform, with highest kinase activity in splenocytes

Mouse Csnk1d Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

Mouse Csnk1d Antibody (Center) Blocking Peptide - Images

Mouse Csnk1d Antibody (Center) Blocking Peptide - Background

This gene encodes a member of the casein kinase I (CKI)family of serine/threonine protein kinases. A highly similar humanprotein regulates an array of cellular processes by influencing theWnt and hedgehog signaling pathways. The encoded protein may alsobe involved in the regulation of apoptosis, circadian rhythm,microtubule dynamics, chromosome segregation, and p53-mediatedeffects on growth. Alternatively spliced transcript variantsencoding different isoforms have been described. [provided byRefSeq].

Mouse Csnk1d Antibody (Center) Blocking Peptide - References

Sugiyama, Y., et al. Biochem. J. 427(3):489-497(2010)Etchegaray, J.P., et al. PLoS ONE 5 (4), E10303 (2010) :Lee, H., et al. Proc. Natl. Acad. Sci. U.S.A. 106(50):21359-21364(2009)Martinez, G., et al. Invest. Ophthalmol. Vis. Sci. 50(10):4794-4806(2009)Isojima, Y., et al. Proc. Natl. Acad. Sci. U.S.A. 106(37):15744-15749(2009)