10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CSNK1G2 Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP7405a

Specification

CSNK1G2 Antibody (C-term) Blocking peptide - Product Information

Primary Accession P78368

CSNK1G2 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 1455

Other Names
Casein kinase I isoform gamma-2, CKI-gamma 2, CSNK1G2, CK1G2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7405a was selected from the C-term region of human CK1g2 . 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.

CSNK1G2 Antibody (C-term) Blocking peptide - Protein Information

Name CSNK1G2

Synonyms CK1G2

Function
Serine/threonine-protein kinase. Casein kinases are operationally defined by their preferential utilization of acidic proteins such as caseins as substrates. It can phosphorylate a large number of proteins. Participates in Wnt signaling (By similarity). Phosphorylates COL4A3BP/CERT, MTA1 and SMAD3. SMAD3 phosphorylation promotes its ligand-dependent ubiquitination and subsequent proteasome degradation, thus inhibiting SMAD3-mediated TGF-beta responses. Hyperphosphorylation of the serine-repeat motif of COL4A3BP/CERT leads to its inactivation by dissociation from the Golgi complex, thus down- regulating ER-to-Golgi transport of ceramide and sphingomyelin synthesis. Triggers PER1 proteasomal degradation probably through phosphorylation (PubMed:15077195, PubMed:<a href="http://www.uniprot.org/citations/15917222"

target="_blank">15917222, PubMed:18794808, PubMed:19005213). Involved in brain development and vesicular trafficking and neurotransmitter releasing from small synaptic vesicles. Regulates fast synaptic transmission mediated by glutamate (By similarity). Involved in regulation of reactive oxygen species (ROS) levels (PubMed:37099597).

Cellular Location
Cytoplasm, cell cortex. Cytoplasm

Tissue Location
Testis..

CSNK1G2 Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

CSNK1G2 Antibody (C-term) Blocking peptide - Images

CSNK1G2 Antibody (C-term) Blocking peptide - Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The casein kinase 1 (CK1) group consists of 12 kinases including CK1, TTBK (tau tubulin kinase), and VRK (vaccinia-related kinase) families.The receptor guanylate cyclase (RGC) group consists of 5 kinases similar in domain sequence to TKs (ANP, CYG).

CSNK1G2 Antibody (C-term) Blocking peptide - References

Grimwood, J., et al., Nature 428(6982):529-535 (2004).Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).Kitabayashi, A.N., et al., Genomics 46(1):133-137 (1997).