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Anti-CSNK1A1 Picoband Antibody

Catalog # ABO12379

Product Information

Application	WB, IHC-P
Primary Accession	P48729
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Casein kinase I isoform alpha(CSNK1A1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	1452
Other Names	Casein kinase I isoform alpha, CKI-alpha, 2.7.11.1, CK1, CSNK1A1
Calculated MW	38915
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Subcellular Localization	Cytoplasm . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Chromosome, centromere, kinetochore . Nucleus speckle . Localizes to the centrosome in interphase cells, and to kinetochore fibers during mitosis. Also recruited to the keratin cytoskeleton (PubMed:23902688). .
Source	Eukaryota
Protein Name	Casein kinase I isoform alpha
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human CSNK1A1 (30-68aa DIYLAINITNGEEVAVKLESQKARHPQLLYESKLYKILQ), identical to the related mouse and rat sequences.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

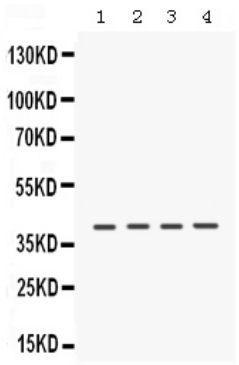
Protein Information

Name	CSNK1A1
Function	Casein kinases are operationally defined by their preferential utilization of acidic proteins such as caseins as substrates (PubMed:11955436, PubMed:1409656, PubMed:18305108, PubMed:23902688). Phosphorylates a large number of proteins (PubMed:11955436, PubMed:1409656, PubMed:18305108, PubMed:23902688). Participates in Wnt signaling (PubMed:11955436). Phosphorylates CTNNB1 at 'Ser-45' (PubMed:11955436). May phosphorylate PER1 and PER2 (By similarity). May play a role in segregating chromosomes during mitosis (PubMed:1409656). May play a role in keratin cytoskeleton disassembly and thereby, it may regulate epithelial cell migration (PubMed:23902688). Acts as a positive regulator of mTORC1 and mTORC2 signaling in response to nutrients by mediating phosphorylation of DEPTOR inhibitor (PubMed:22017875, PubMed:22017877). Acts as an inhibitor of NLRP3 inflammasome assembly by mediating phosphorylation of NLRP3 (By similarity).
Cellular Location	Cytoplasm. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Chromosome, centromere, kinetochore. Nucleus speckle. Cytoplasm, cytoskeleton, cilium basal body {ECO:0000250|UniProtKB:Q8BK63}. Cytoplasm, cytoskeleton, spindle {ECO:0000250|UniProtKB:Q8BK63}. Note=Localizes to the centrosome in interphase cells, and to kinetochore fibers during mitosis. Also recruited to the keratin cytoskeleton (PubMed:23902688)

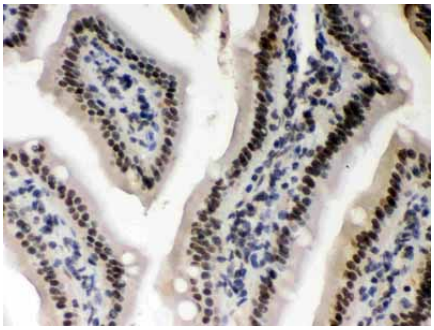
Background

Casein kinase I isoform alpha is an enzyme that in humans is encoded by the CSNK1A1 gene. The CSNK1A1 gene is mapped to chromosome 5q32 based on an alignment of the CSNK1A1 sequence with the genomic sequence (GRCh37). It is reported that both screens identified CK1-alpha as a bifunctional regulator of NF-kappa-B. CK1-alpha dynamically associates with the CBM complex on T cell receptor engagement to participate in cytokine production and lymphocyte proliferation. However, CK1-alpha kinase activity has a contrasting role by subsequently promoting the phosphorylation and inactivation of CARMA1. CK1-alpha has thus a dual 'gating' function which first promotes and then terminates receptor-induced NF-kappa-B. ABC DLBCL cells required CK1-alpha for constitutive NF-kappa-B activity, indicating that CK1-alpha functions as a conditionally essential malignancy gene.

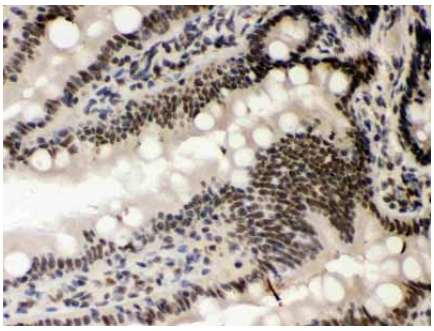
Images



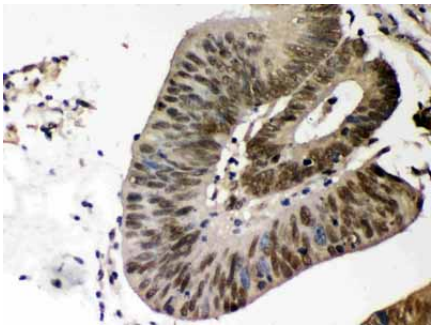
Anti- CSNK1A1 Picoband antibody, ABO12379, Western blottingAll lanes: Anti CSNK1A1 (ABO12379) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: Rat Kidney Tissue Lysate at 50ugLane 3: Mouse Kidney Tissue Lysate at 50ugLane 4: HELA Whole Cell Lysate at 40ugPredicted bind size: 39KDObserved bind size: 39KD



Anti- CSNK1A1 Picoband antibody,
ABO12379,IHC(P)IHC(P): Mouse Intestine Tissue



Anti- CSNK1A1 Picoband antibody,
ABO12379,IHC(P)IHC(P): Rat Intestine Tissue



Anti- CSNK1A1 Picoband antibody,
ABO12379,IHC(P)IHC(P): Human Intestinal Cancer Tissue

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.