




Product datasheet

Anti-Casein Kinase 1 delta/CSNK1D antibody ab48031

★★★★★ 1 Abreviews 2 References 2 Images

Overview

Product name	Anti-Casein Kinase 1 delta/CSNK1D antibody
Description	Goat polyclonal to Casein Kinase 1 delta/CSNK1D
Host species	Goat
Specificity	This antibody is expected to recognise both reported isoforms of Casein Kinase 1 delta/CSNK1D.
Tested applications	Suitable for: WB, ICC/IF
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat, Cow, Dog, Chimpanzee, Macaque monkey 
Immunogen	Synthetic peptide corresponding to Human Casein Kinase 1 delta/CSNK1D aa 310-324 (internal sequence). Sequence: DREERLRHSRNPATR Database link: P48730  Run BLAST with  Run BLAST with
Positive control	WB: HEK 293 cell lysate. ICC/UF U251 cells.
General notes	Previously labelled as Casein Kinase 1 delta.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.02% Sodium Azide Constituents: 0.5% BSA, Tris buffered saline, pH 7.3
Purity	Immunogen affinity purified
Purification notes	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab48031** in the following tested applications.

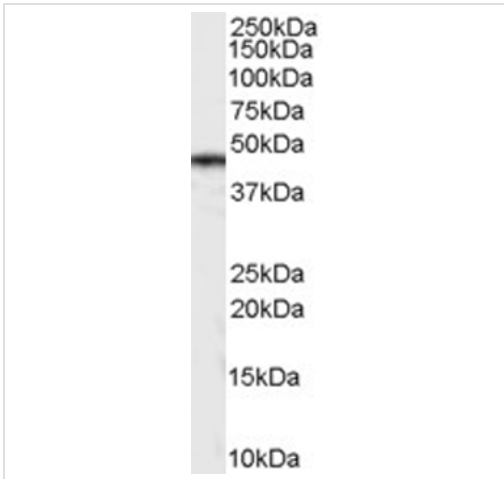
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★☆	Use a concentration of 0.3 - 1 µg/ml. Detects a band of approximately 48 kDa (predicted molecular weight: 47 kDa).
ICC/IF		Use a concentration of 10 µg/ml.

Target

Function	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. Central component of the circadian clock. May act as a negative regulator of circadian rhythmicity by phosphorylating PER1 and PER2. Retains PER1 in the cytoplasm.
Tissue specificity	Expressed in all tissues examined, including brain, heart, lung, liver, pancreas, kidney, placenta and skeletal muscle. In blood, highly expressed in hemopoietic cells and mature granulocytes. Also found in monocytes and lymphocytes.
Involvement in disease	Defects in CSNK1D are a cause of familial advanced sleep-phase syndrome (FASPS) [MIM:604348]. FASPS is characterized by very early sleep onset and offset. Individuals are 'morning larks' with a 4 hours advance of the sleep, temperature and melatonin rhythms.
Sequence similarities	Belongs to the protein kinase superfamily. CK1 Ser/Thr protein kinase family. Casein kinase I subfamily. Contains 1 protein kinase domain.
Post-translational modifications	Autophosphorylated on serine and threonine residues.
Cellular localization	Cytoplasm. Nucleus.

Images



Western blot - Anti-Casein Kinase 1 delta/CSNK1D antibody (ab48031)

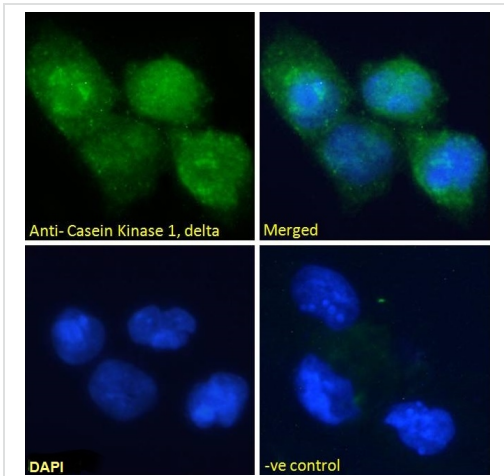
Anti-Casein Kinase 1 delta/CSNK1D antibody (ab48031) at 0.3 µg/ml + HEK 293 cell lysate in RIPA buffer at 35 µg

Predicted band size: 47 kDa

Observed band size: 48 kDa

[why is the actual band size different from the predicted?](#)

Primary incubation was 1 hour. Detected using chemiluminescence.



Immunocytochemistry/ Immunofluorescence - Anti-Casein Kinase 1 delta/CSNK1D antibody (ab48031)

Immunocytochemistry/Immunofluorescence analysis of U251 cells labelling Casein Kinase 1 delta/CSNK1D with ab48031 at 10 µg/ml. Cells were paraformaldehyde fixed and permeabilized with 0.15% triton. Primary antibody incubation was for 1 hour followed by incubation with an Alexa Fluor[®] 488-conjugated secondary antibody at 2 µg/ml. DAPI nuclear counterstain was used.

Negative control: Unimmunized goat IgG (10 µg/ml) followed by an Alexa Fluor[®] 488-conjugated secondary antibody (2 µg/ml).

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