

## **CLK2 Antibody (Center)**

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP16732c

## **Specification**

# **CLK2 Antibody (Center) - Product Information**

Application WB,E
Primary Accession P49760

Other Accession <u>035491</u>, <u>NP 003984.2</u>

Reactivity
Predicted
Host
Clonality
Isotype
Calculated MW
Antigen Region

Human
Mouse
Rabbit
Polyclonal
Rabbit IgG
Ca090
291-319

# **CLK2 Antibody (Center) - Additional Information**

### **Gene ID** 1196

## **Other Names**

Dual specificity protein kinase CLK2, CDC-like kinase 2, CLK2

## Target/Specificity

This CLK2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 291-319 amino acids from the Central region of human CLK2.

## **Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

#### **Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

#### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

### **Precautions**

CLK2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

# **CLK2 Antibody (Center) - Protein Information**

### Name CLK2



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Function Dual specificity kinase acting on both serine/threonine and tyrosine-containing substrates. Phosphorylates serine- and arginine- rich (SR) proteins of the spliceosomal complex. May be a constituent of a network of regulatory mechanisms that enable SR proteins to control RNA splicing and can cause redistribution of SR proteins from speckles to a diffuse nucleoplasmic distribution. Acts as a suppressor of hepatic gluconeogenesis and glucose output by repressing PPARGC1A transcriptional activity on gluconeogenic genes via its phosphorylation. Phosphorylates PPP2R5B thereby stimulating the assembly of PP2A phosphatase with the PPP2R5B-AKT1 complex leading to dephosphorylation of AKT1. Phosphorylates: PTPN1, SRSF1 and SRSF3. Regulates the alternative splicing of tissue factor (F3) pre-mRNA in endothelial cells. Phosphorylates PAGE4 at several serine and threonine residues and this phosphorylation attenuates the ability of PAGE4 to potentiate the transcriptional activator activity of JUN (PubMed: 28289210).

#### **Cellular Location**

Nucleus. [Isoform 2]: Nucleus speckle. Note=Co-localizes with serine- and arginine-rich (SR) proteins in the nuclear speckles

#### **Tissue Location**

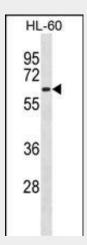
Endothelial cells (PubMed:19168442). Expressed in androgen-dependent prostate cancer cells (PubMed:28289210)

## **CLK2 Antibody (Center) - Protocols**

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

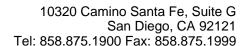
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# CLK2 Antibody (Center) - Images



CLK2 Antibody (Center) (Cat. #AP16732c) western blot analysis in HL-60 cell line lysates (35ug/lane). This demonstrates the CLK2 antibody detected the CLK2 protein (arrow).

## CLK2 Antibody (Center) - Background





This gene encodes a member of the CLK family of dual specificity protein kinases. CLK family members have been shown to interact with, and phosphorylate, serine- and arginine-rich (SR) proteins of the spliceosomal complex, which is a part of the regulatory mechanism that enables the SR proteins to control RNA splicing. Note that this gene is distinct from TELO2 gene (GeneID:9894), which shares CLK2 and hCLK2 symbol aliases in common with this gene, but encodes a protein that is involved in telomere length regulation.

## **CLK2 Antibody (Center) - References**

Nam, S.Y., et al. J. Biol. Chem. 285(41):31157-31163(2010) Eisenreich, A., et al. Circ. Res. 104(5):589-599(2009) Rendtlew Danielsen, J.M., et al. J. Biol. Chem. 284(7):4140-4147(2009) Castle, J.C., et al. Nat. Genet. 40(12):1416-1425(2008) Jin, J., et al. Curr. Biol. 14(16):1436-1450(2004)