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

# CLK2 Antibody (N-term)
**Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP7530a**

## Specification

### CLK2 Antibody (N-term) - Product Information

| | |
|---|---|
| Application | **WB,E** |
| Primary Accession | P49760 |
| Other Accession | O35491 |
| Reactivity | **Human** |
| Predicted | **Mouse** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |
| Antigen Region | **1-30** |

### CLK2 Antibody (N-term) - 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 1-30 amino acids from the N-terminal region of human CLK2.

**Dilution**
WB~~1:1000

**Format**
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**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 (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### CLK2 Antibody (N-term) - Protein Information

**Name** CLK2

**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

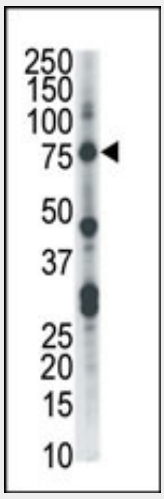
**Tissue Location**
Endothelial cells (PubMed:19168442). Expressed in androgen-dependent prostate cancer cells (PubMed:28289210)

## CLK2 Antibody (N-term) - 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 (N-term) - Images




Western blot analysis of anti-CLK2 Pab (Cat. #AP7530a) in HL-60 cell lysate. CLK2 (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.

## CLK2 Antibody (N-term) - Background

This gene encodes a member of the CLK family of dual specificity protein kinases. CLK family members have 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. This protein kinase is involved in the regulation of several cellular processes and may serve as a link between cell cycle progression, apoptosis, and telomere length regulation.

**CLK2 Antibody (N-term) - References**

Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).
Winfield, S.L., et al., Genome Res. 7(10):1020-1026 (1997).
Lee, K., et al., J. Biol. Chem. 271(44):27299-27303 (1996).
Hanes, J., et al., J. Mol. Biol. 244(5):665-672 (1994).

**CLK2 Antibody (N-term) - Citations**

- CLK2 Is an Oncogenic Kinase and Splicing Regulator in Breast Cancer.
- Phosphorylation of CLK2 at serine 34 and threonine 127 by AKT controls cell survival after ionizing radiation.