

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 035491 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

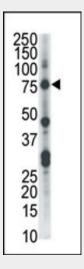
Endothelial cells (PubMed:19168442). Expressed in androgen-dependent prostate cancer cells (PubMed:28289210)

CLK2 Antibody (N-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- 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





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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.