

ARG42735 anti-CLK2 antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes CLK2
Tested Reactivity	Hu
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	CLK2
Species	Human
Immunogen	Human CLK2.
Conjugation	Un-conjugated
Alternate Names	CDC-like kinase 2; Dual specificity protein kinase CLK2; EC 2.7.12.1

Application Instructions

Application table	Application	Dilution
	IHC-P	Assay-dependent
	WB	Assay-dependent
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
Purification	Purified
Purity	> 95% (by SDS-PAGE)
Buffer	PBS (pH 7.2), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Gene Symbol	CLK2
Gene Full Name	CDC-like kinase 2
Background	This gene encodes a dual specificity protein kinase that phosphorylates serine/threonine and tyrosine-containing substrates. Activity of this protein regulates serine- and arginine-rich (SR) proteins of the spliceosomal complex, thereby influencing alternative transcript splicing. Chromosomal translocations have been characterized between this locus and the PAFAH1B3 (platelet-activating factor acetylhydrolase 1b, catalytic subunit 3 (29kDa)) gene on chromosome 19, resulting in the production of a fusion protein. Note that this gene is distinct from the Telo2 gene (GeneID:9894), which shares the CLK2 alias, but encodes a protein that is involved in telomere length regulation. There is a pseudogene for this gene on chromosome 7. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jun 2014]
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). [UniProt]
Calculated Mw	60 kDa
PTM	Autophosphorylates on all three types of residues. Phosphorylation on Ser-34 and Thr-127 by AKT1 is induced by ionizing radiation or insulin. Phosphorylation plays a critical role in cell proliferation following low dose radiation and prevents cell death following high dose radiation. Phosphorylation at Thr-344 by PKB/AKT2 induces its kinase activity which is required for its stability. The phosphorylation status at Ser-142 influences its subnuclear localization; inhibition of phosphorylation at Ser-142 results in accumulation in the nuclear speckle. [UniProt]
Cellular Localization	Isoform 1: Nucleus. Nucleus speckle. Note=Inhibition of phosphorylation at Ser-142 results in accumulation in the nuclear speckle. Isoform 2: Nucleus speckle. Note=Co-localizes with serine- and arginine-rich (SR) proteins in the nuclear speckles. [UniProt]