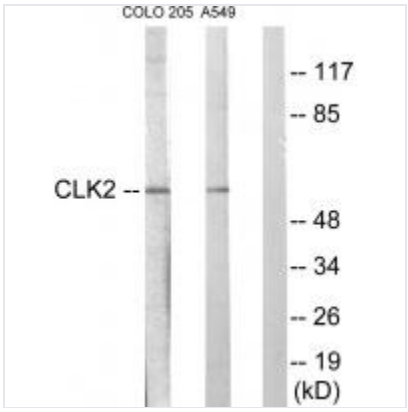
CLK2 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	CLK2, Polyclonal Antibody
Full Product Name	CLK2 Antibody
Product Gene Name	anti-CLK2 antibody
Product Synonym Names	CDC-like kinase 2; EC 2.7.12.1; kinase CLK2
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration	1.0 mg/ml (lot specific)
Specificity	The antibody detects endogenous levels of total CLK2 protein.
Preparation and Storage	Store at -20 degree C
Molecular Weight	59,962 Da
OMIM	602989
3D Structure	ModBase 3D Structure for P49760
Immunogen Type	Peptide
Immunogen Description	Synthesized peptide derived from internal of human CLK2.
Target Name	CLK2
Product Categories/Family for anti-CLK2 antibody	Total protein Ab
Applications Tested/Suitable for anti-CLK2 antibody	Western Blot (WB)
Application Notes for anti-CLK2 antibody	Western blotting: 1:500~1:3000
Related Product Information for anti-CLK2 antibody	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.Hanes J.J., J. Mol. Biol. 244:665-672(1994).Winfield S.L., Genome Res. 7:1020-1026(1997).Lee K., J. Biol. Chem. 271:27299-27303(1996).
Other Notes	Small volumes of anti-CLK2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for CLK2 purchase	MBS9410144 is an antibody targeting CLK2. Also known as CLK2 Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.



Western Blot (WB) of anti-CLK2 antibody
Western blot analysis of extracts from COLO205 cells and A549 cells, using CLK2 antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CLK2. It may not necessarily be applicable to this product.

NCBI GI #	661567373
NCBI GeneID	1196
NCBI Accession #	NP_001281267.1
UniProt Primary Accession #	P49760
UniProt Secondary Accession #	Q96CQ0; B1AVS9; B5MBX6
UniProt Related Accession #	P49760
GenBank Nucleotide #	NM_001294338.1
NCBI Official Full Name	dual specificity protein kinase CLK2 isoform 1
NCBI Official Synonym Full Names	CDC-like kinase 2
NCBI Official Symbol	CLK2
UniProt Protein Name	Dual specificity protein kinase CLK2
UniProt Synonym Protein Names	CDC-like kinase 2
Protein Family	Dual specificity protein kinase
UniProt Gene Name	CLK2
UniProt Entry Name	CLK2_HUMAN
NCBI Protein Information	dual specificity protein kinase CLK2
NCBI Summary for CLK2	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]

UniProt Comments for CLK2	CLK2: 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. Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. Lammer subfamily. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Protein kinase, CMGC; EC 2.7.12.1; Protein kinase, dual-specificity (non-receptor); Kinase, protein; CMGC group; CLK family Chromosomal Location of Human Ortholog: 1q21 Cellular Component: nucleoplasm; nuclear speck; nucleus Molecular Function: protein serine/threonine kinase activity; protein binding; protein-tyrosine kinase activity; protein serine/threonine/tyrosine kinase activity; ATP binding Biological Process: response to retinoic acid; peptidyl-tyrosine phosphorylation; regulation of RNA splicing; negative regulation of gluconeogenesis; protein amino acid autophosphorylation; response to ionizing radiation; protein amino acid phosphorylation
Research Articles on CLK2	**1.** LAMMER/Cdc2-like kinase, represented by Doa and its mammalian homolog CLK2, is a critical and conserved component in the regulatory program of the mitosis-to-meiosis switch
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