

Product datasheet for **TA319415**

CDK9 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, WB
Recommended Dilution:	ELISA: 1:10,000 - 1:50,000, WB: 1:500 - 1:3,000, IHC: 1:200 - 1:1,000, IP: 1:100
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Multiple synthetic peptides corresponding to C-terminal and N-terminal domains of the protein coded by the human gene cdk9 (PITALRE).
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	cyclin-dependent kinase 9
Database Link:	NP_001252 Entrez Gene 107951 Mouse Entrez Gene 362110 Rat Entrez Gene 1025 Human P50750
Synonyms:	C-2k; CDC2L4; CTK1; PITALRE; TAK



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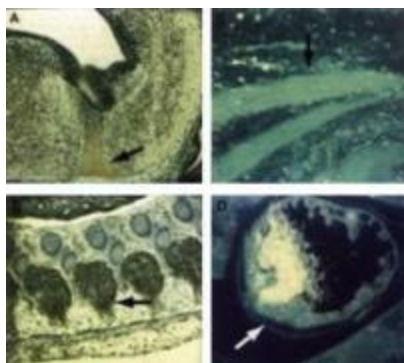
Note: CDK9 (PITALRE) (also known as cyclin-dependent kinase 9, Serine/threonine-protein kinase PITALRE, C-2K and Cell division cycle 2-like protein kinase 4) is a member of the cyclin-dependent protein kinase (CDK) family. CDK family members are highly similar to the gene products of *S. cerevisiae* cdc28, and *S. pombe* cdc2, and known as important cell cycle regulators. CDK9 (PITALRE) interacts with a conserved domain in the TRAF-C region of the tumor necrosis factor signal transducer TRAF2. This kinase also was found to be a component of the multiprotein complex TAK/P-TEFb, which is an elongation factor for RNA polymerase II-directed transcription and functions by phosphorylating the C-terminal domain of the largest subunit of RNA polymerase II. This protein forms a complex with and is regulated by its regulatory subunit cyclin T or cyclin K. HIV-1 Tat protein was found to interact with this protein and cyclin T, which suggested a possible involvement of this protein in AIDS. Tat stimulates human HIV-1 viral transcription elongation. This suggests that cyclin T1/cdk9(PITALRE) is one of the HIV-1 required host cellular cofactors generated during T cell activation. Cyclin T1/cdk9(PITALRE) is shown to interact with Tat to restore Tat activation in HeLa nuclear extracts depleted of P-TEFb. The cdk9(PITALRE) activity and cyclin T1 are essential for activation of transcription when tethered to the heterologous Rev response element RNA via the regulator of expression of virion Rev. CDK9 (PITALRE) is a ubiquitously expressed nuclear protein.

Protein Families: Druggable Genome, Protein Kinase, Transcription Factors

Product images:



anti cdk9 antibody (TA319415 1:1500) was used for Western blot analysis of 1) PC3 and 2) DU145 prostate cancer cells (50ug per lane). Bands at the expected MW of 55 and 42 Kda were detected. Personal communication Flavio Rizzolio, Temple University



ICC staining of mouse tissue using anti-cdk9 (Pitalre) antiserum. Panel A: Peroxidase-DAB immunostaining of mcdk9/Pitalre protein in the developing mouse brain in the differentiated region of the medulla oblongata just below the fourth ventricle. Similar staining in Panel B in the dorsal root ganglia. Panel C: Fluorescein IF of mcdk9/Pitalre in skeletal muscle. Similar staining in Panel D in cardiac muscle.