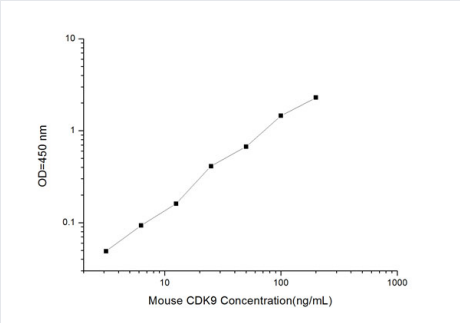
# CDK9 ELISA Kit for Mouse

## PRODUCT OVERVIEW

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| **Product Name** | CDK9, ELISA Kit |
| **Full Product Name** | Mouse CDK9 (Cyclin Dependent Kinase 9) ELISA Kit |
| **Product Gene Name** | CDK9 elisa kit |
| **Species Reactivity** | Mouse |
| **Assay Type** | Quantitative Sandwich |
| **Samples** | Serum, plasma and other biological fluids |
| **Detection Range** | 3.13-200ng/mL |
| **Sensitivity** | 1.88ng/mL |
| **Specificity** | This kit recognizes Mouse CDK9 in samples. No significant cross-reactivity or interference between Mouse CDK9 and analogues was observed. |
| **Preparation and Storage** | Store at 4 degree C. |
| **Inter-assay Precision** | Inter-assay Precision (Precision between assays): 3 samples with low, mid range and high level Mouse CDK9 were tested on 3 different plates, 20 replicates in each plate. |
| **Intra-assay Precision** | Intra-assay Precision (Precision within an assay): 3 samples with low, mid range and high level Mouse CDK9 were tested 20 times on one plate, respectively. |
| **Molecular Weight** | 53,365 Da |
| **OMIM** | 603251 |
| **3D Structure** | ModBase 3D Structure for P50750 |
| **ISO Certification** | Manufactured in an ISO 9001:2015 Certified Laboratory. |
| **Related Product Information for CDK9 elisa kit** | Intended Uses: This ELISA kit applies to the in vitro quantitative determination of Mouse CDK9 concentrations in serum, plasma and other biological fluids.<br><br>Principle of the Assay: This ELISA kit uses the Sandwich-ELISA principle. The micro ELISA plate provided in this kit has been pre-coated with an antibody specific to Mouse CDK9. Standards or samples are added to the micro ELISA plate wells and combined with the specific antibody. Then a biotinylated detection antibody specific for Mouse CDK9 and Avidin-Horseradish Peroxidase (HRP) conjugate are added successively to each micro plate well and incubated. Free components are washed away. The substrate solution is added to each well. Only those wells that contain Mouse CDK9, biotinylated detection antibody and Avidin-HRP conjugate will appear blue in color. The enzyme-substrate reaction is terminated by the addition of stop solution and the color turns yellow. The optical density (OD) is measured spectrophotometrically at a wavelength of 450 nm +/- 2 nm. The OD value is proportional to the concentration of Mouse CDK9. You can calculate the concentration of Mouse CDK9 in the samples by comparing the OD of the samples to the standard curve. |
| **Other Notes** | Small volumes of CDK9 elisa kit 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. |

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| **Searchable Terms for CDK9 purchase** | MBS2501429 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the CDK9, ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing CDK9. The ELISA analytical biochemical technique of the MBS2501429 kit is based on CDK9 antibody-CDK9 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CDK9 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CDK9. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%). |




**Typical Testing Data/Standard Curve (for reference only) of CDK9 elisa kit**

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CDK9. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 4502747 |
| **NCBI GeneID** | 1025 |
| **NCBI Accession #** | NP_001252.1 |
| **UniProt Primary Accession #** | P50750 |
| **UniProt Secondary Accession #** | Q5JU24; Q5JU25; Q5U006; Q96TF1 |
| **UniProt Related Accession #** | P50750 |
| **GenBank Nucleotide #** | NM_001261.3 |
| **NCBI Official Full Name** | cyclin-dependent kinase 9 |
| **NCBI Official Synonym Full Names** | cyclin-dependent kinase 9 |
| **NCBI Official Symbol** | CDK9 |
| **NCBI Official Synonym Symbols** | TAK; C-2k; CTK1; CDC2L4; PITALRE |
| **UniProt Protein Name** | Cyclin-dependent kinase 9 |
| **UniProt Synonym Protein Names** | C-2K; Cell division cycle 2-like protein kinase 4; Cell division protein kinase 9; Serine/threonine-protein kinase PITALRE; Tat-associated kinase complex catalytic subunit |
| **Protein Family** | Cyclin-dependent kinase |
| **UniProt Gene Name** | CDK9 |
| **UniProt Synonym Gene Names** | CDC2L4; TAK |
| **UniProt Entry Name** | CDK9_HUMAN |
| **NCBI Protein Information** | cyclin-dependent kinase 9; CDC2-related kinase; cell division cycle 2-like protein kinase 4; cell division protein kinase 9; serine/threonine protein kinase PITALRE; tat-associated kinase complex catalytic subunit |

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| **NCBI Summary for CDK9** | The protein encoded by this gene 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. This kinase 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. [provided by RefSeq, Jul 2008] |
| **UniProt Comments for CDK9** | CDK9: a protein kinase of the CDK family. Forms a complex with and is regulated by its regulatory subunit cyclin T or cyclin K. 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. Transcriptional elongation factor and cofactor for HIV Tat protein; RNAi blocks HIV replication, and inhibitors also block varicella zoster replication. Mediates signals leading to cardiac hypertrophy. Inhibitor: Flavopiridol.<br><br>Protein type: Kinase, protein; EC 2.7.11.22; Cell cycle regulation; Nuclear receptor co-regulator; Protein kinase, Ser/Thr (non-receptor); EC 2.7.11.23; Protein kinase, CMGC; CMGC group; CDK family; CDK9 subfamily; CDK/CDK9 subfamily<br><br>Chromosomal Location of Human Ortholog: 9q34.1<br><br>Cellular Component: nucleoplasm; transcription elongation factor complex; PML body; transcription elongation factor complex b; membrane; intracellular membrane-bound organelle; cytoplasm<br><br>Molecular Function: RNA polymerase subunit kinase activity; protein binding; snRNA binding; DNA binding; cyclin-dependent protein kinase activity; chromatin binding; ATP binding; protein kinase activity<br><br>Biological Process: regulation of histone modification; transcription from RNA polymerase II promoter; transcription initiation from RNA polymerase II promoter; transcription, DNA-dependent; positive regulation of histone phosphorylation; viral reproduction; positive regulation of viral transcription; regulation of mitotic cell cycle; DNA repair; protein amino acid phosphorylation; regulation of DNA repair; cell proliferation; transforming growth factor beta receptor signaling pathway; RNA elongation from RNA polymerase II promoter; replication fork arrest; positive regulation of transcription from RNA polymerase II promoter; gene expression |
| **Research Articles on CDK9** | **1.** Plk1 negatively regulates the RNA polymerase II-dependent transcription through inhibiting the activity of cyclin T1/Cdk9 complex. |
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