Cyclin-Dependent Kinase 8 (CDK8) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cyclin-dependent kinase 8 (CDK8), ELISA Kit
Full Product Name	Human Cyclin-dependent kinase 8 (CDK8) ELISA Kit
Product Gene Name	CDK8 elisa kit
Product Synonym Names	K35; MGC126074; MGC126075; CDK8 protein kinase; cell division protein kinase 8; protein kinase K35
Species Reactivity	Human
Assay Type	Quantitive Sandwich
Samples	Serum, Plasma, Other Biological Fluids
Specificity	This assay has high sensitivity and excellent specificity for detection of Human CDK8. No significant cross-reactivity or interference between Human CDK8 and analogues was observed.
Preparation and Storage	Store at 2-8 degree C.
Molecular Weight	53,156 Da
OMIM	X85753 mRNA
3D Structure	ModBase 3D Structure for P49336
Detection Wavelength	450 nm
Intra-assay Precision (Precision within an assay)	Three samples of known concentration were tested twenty times on one plate to assess intra-assay precision.
Inter-assay Precision (Precision between assays)	Three samples of known concentration were tested in forty separate assays to assess inter-assay precision.
CV (%)	= SD/meanX100
Intra-Assay	CV
Inter-Assay	CV
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for CDK8 elisa kit	This assay employs a two-site sandwich ELISA to quantitate CDK8 in samples. An antibody specific for CDK8 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any CDK8 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for CDK8 is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of CDK8 bound in the initial step. The color development is stopped and the intensity of the color is measured.
Other Notes	Small volumes of CDK8 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.

Searchable Terms for CDK8 purchase	MBS287363 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cyclin-dependent kinase 8 (CDK8) 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 CDK8. The ELISA analytical biochemical technique of the MBS287363 kit is based on CDK8 antibody-CDK8 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CDK8 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CDK8. 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(%).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CDK8. It may not necessarily be applicable to this product.

NCBI GI #	4502745
NCBI GeneID	1024
NCBI Accession #	NP_001251.1
UniProt Primary Accession #	P49336
UniProt Secondary Accession #	Q5VUF3; Q6ISB5
UniProt Related Accession #	P49336
GenBank Nucleotide #	NM_001260.2
NCBI Official Full Name	cyclin-dependent kinase 8 isoform 1
NCBI Official Synonym Full Names	cyclin dependent kinase 8
NCBI Official Symbol	CDK8
NCBI Official Synonym Symbols	K35
UniProt Protein Name	Cyclin-dependent kinase 8
UniProt Synonym Protein Names	Cell division protein kinase 8; Mediator complex subunit CDK8; Mediator of RNA polymerase II transcription subunit CDK8; Protein kinase K35
Protein Family	Cyclin-dependent kinase
UniProt Gene Name	CDK8
NCBI Protein Information	cyclin-dependent kinase 8
NCBI Summary for CDK8	This gene encodes a member of the cyclin-dependent protein kinase (CDK) family. CDK family members are known to be important regulators of cell cycle progression. This kinase and its regulatory subunit, cyclin C, are components of the Mediator transcriptional regulatory complex, involved in both transcriptional activation and repression by phosphorylation of the carboxy-terminal domain of the largest subunit of RNA polymerase II. This kinase regulates transcription by targeting the cyclin-dependent kinase 7 subunits of the general transcription initiation factor IIH, thus providing a link between the Mediator complex and the basal transcription machinery. Multiple pseudogenes of this gene have been identified. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2016]
UniProt Comments for CDK8	Component of the Mediator complex, a coactivator involved in regulated gene transcription of nearly all RNA polymerase II-dependent genes. Mediator functions as a bridge to convey information from gene-specific regulatory proteins to the basal RNA polymerase II transcription machinery. Mediator is recruited to promoters by direct interactions with regulatory proteins and serves as a scaffold for the assembly of a functional preinitiation complex with RNA polymerase II and the general transcription factors. Phosphorylates the CTD (C-terminal domain) of the large subunit of RNA polymerase II (RNAp II), which may inhibit the formation of a transcription initiation complex. Phosphorylates CCNH leading to down-regulation of the TFIIH complex and transcriptional repression. Recruited through interaction with MAML1 to hyperphosphorylate the intracellular domain of NOTCH, leading to its degradation.
Research Articles on CDK8	**1.** identification of the Mediator-associated kinase CDK8, and its paralog CDK19, as negative regulators of IL-10 production during innate immune activation

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