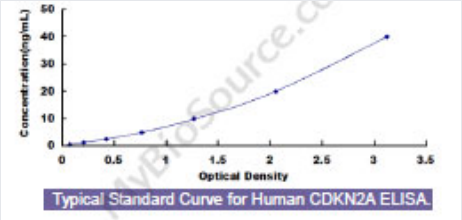
Cyclin Dependent Kinase Inhibitor 2a (CDKN2A) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cyclin Dependent Kinase Inhibitor 2A (CDKN2A), ELISA Kit
Full Product Name	Human Cyclin Dependent Kinase Inhibitor 2A (CDKN2A) ELISA Kit
Product Gene Name	CDKN2A elisa kit
Product Synonym Names	P16 ARF CDK4I CMM2 INK4 INK4a MLM MTS1 TP16 P14 P14ARF P16INK4a P19 Melanoma P16 Cyclin-dependent kinase 4 inhibitor A Multiple tumor suppressor 1
Species Reactivity	Human
Assay Type	Sandwich
Samples	Tissue homogenates, cell lysates and other biological fluids.
Detection Range	0.625-40ng/mL
Sensitivity	0.234ng/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of CDKN2A. No significant cross-reactivity or interference between CDKN2A and analogues was observed.
Preparation and Storage	For unopened kit, all reagents should be kept according to the labels on vials. The TMB Substrate, Wash Buffer, Stop Solution should be stored at 4 degree C. All others should be stored at -20 degree C.
Inter-assay Precision	Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level CDKN2A were tested on 3 different plates, 8 replicates in each plate. CV(%) = SD/meanX100. Inter-Assay: CV<12%
Intra-assay Precision	Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level CDKN2A were tested 20 times on one plate, respectively. Intra-Assay: CV<10%
Molecular Weight	16,533 Da
OMIM	S78535 mRNA
3D Structure	ModBase 3D Structure for Q8N726
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for CDKN2A elisa kit	Intended Uses: The kit is a sandwich enzyme immunoassay for in vitro quantitative measurement of CDKN2A in human tissue homogenates, cell lysates and other biological fluids. Principle of the Assay: The microtiter plate provided in this kit has been pre-coated with an antibody specific to CDKN2A. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to CDKN2A. Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain CDKN2A, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm +/- 10nm. The concentration of CDKN2A in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of CDKN2A 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 CDKN2A purchase	MBS451082 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 Inhibitor 2A (CDKN2A) 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 CDKN2A. The ELISA analytical biochemical technique of the MBS451082 kit is based on CDKN2A antibody-CDKN2A antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CDKN2A antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CDKN2A. 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 CDKN2A elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CDKN2A. It may not necessarily be applicable to this product.

NCBI GI #	300863096
NCBI GeneID	1029
NCBI Accession #	NP_478102.2
UniProt Primary Accession #	Q8N726
UniProt Secondary Accession #	Q13195; Q13399; Q16360; Q7KZR9; D3DRK2
UniProt Related Accession #	P42771; Q8N726
GenBank Nucleotide #	NM_058195.3
NCBI Official Full Name	cyclin-dependent kinase inhibitor 2A isoform p14ARF
NCBI Official Synonym Full Names	cyclin dependent kinase inhibitor 2A
NCBI Official Symbol	CDKN2A
NCBI Official Synonym Symbols	ARF; MLM; P14; P16; P19; CMM2; INK4; MTS1; TP16; CDK4I; CDKN2; INK4A; MTS-1; P14ARF; P19ARF; P16INK4; P16INK4A; P16-INK4A
UniProt Protein Name	Tumor suppressor ARF
UniProt Synonym Protein Names	Alternative reading frame
Protein Family	Cyclin-dependent kinase inhibitor
UniProt Gene Name	CDKN2A
UniProt Synonym Gene Names	ARF
NCBI Protein Information	cyclin-dependent kinase inhibitor 2A

NCBI Summary for CDKN2A	This gene generates several transcript variants which differ in their first exons. At least three alternatively spliced variants encoding distinct proteins have been reported, two of which encode structurally related isoforms known to function as inhibitors of CDK4 kinase. The remaining transcript includes an alternate first exon located 20 Kb upstream of the remainder of the gene; this transcript contains an alternate open reading frame (ARF) that specifies a protein which is structurally unrelated to the products of the other variants. This ARF product functions as a stabilizer of the tumor suppressor protein p53 as it can interact with, and sequester, the E3 ubiquitin-protein ligase MDM2, a protein responsible for the degradation of p53. In spite of the structural and functional differences, the CDK inhibitor isoforms and the ARF product encoded by this gene, through the regulatory roles of CDK4 and p53 in cell cycle G1 progression, share a common functionality in cell cycle G1 control. This gene is frequently mutated or deleted in a wide variety of tumors, and is known to be an important tumor suppressor gene. [provided by RefSeq, Sep 2012]
UniProt Comments for CDKN2A	Capable of inducing cell cycle arrest in G1 and G2 phases. Acts as a tumor suppressor. Binds to MDM2 and blocks its nucleocytoplasmic shuttling by sequestering it in the nucleolus. This inhibits the oncogenic action of MDM2 by blocking MDM2-induced degradation of p53 and enhancing p53-dependent transactivation and apoptosis. Also induces G2 arrest and apoptosis in a p53-independent manner by preventing the activation of cyclin B1/CDC2 complexes. Binds to BCL6 and down-regulates BCL6-induced transcriptional repression. Binds to E2F1 and MYC and blocks their transcriptional activator activity but has no effect on MYC transcriptional repression. Binds to TOP1/TOPOI and stimulates its activity. This complex binds to rRNA gene promoters and may play a role in rRNA transcription and/or maturation. Interacts with NPM1/B23 and promotes its polyubiquitination and degradation, thus inhibiting rRNA processing. Interacts with COMMD1 and promotes its 'Lys63'-linked polyubiquitination. Interacts with UBE2I/UBC9 and enhances sumoylation of a number of its binding partners including MDM2 and E2F1. Binds to HUWE1 and represses its ubiquitin ligase activity. May play a role in controlling cell proliferation and apoptosis during mammary gland development. Isoform smARF may be involved in regulation of autophagy and caspase-independent cell death; the short-lived mitochondrial isoform is stabilized by C1QBP.
Research Articles on CDKN2A	**1.** Genetic risk variants in the CDKN2A gene is associated with somatic biomarkers in glioma.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/human-elisa-kits/cyclin-dependent-kinase-inhibitor-2a-cdkn2a/451082