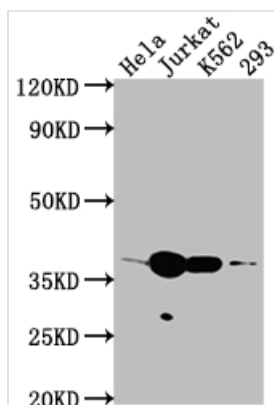




CDK6 Recombinant Monoclonal Antibody

Product Code	CSB-RA555745A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q00534
Immunogen	A synthesized peptide derived from human CDK6
Species Reactivity	Human
Tested Applications	ELISA, WB, IP; Recommended dilution: WB:1:500-1:5000, IP:1:200-1:1000
Relevance	Serine/threonine-protein kinase involved in the control of the cell cycle and differentiation; promotes G1/S transition. Phosphorylates pRB/RB1 and NPM1. Interacts with D-type G1 cyclins during interphase at G1 to form a pRB/RB1 kinase and controls the entrance into the cell cycle. Involved in initiation and maintenance of cell cycle exit during cell differentiation; prevents cell proliferation and regulates negatively cell differentiation, but is required for the proliferation of specific cell types (e.g. erythroid and hematopoietic cells). Essential for cell proliferation within the dentate gyrus of the hippocampus and the subventricular zone of the lateral ventricles. Required during thymocyte development. Promotes the production of newborn neurons, probably by modulating G1 length. Promotes, at least in astrocytes, changes in patterns of gene expression, changes in the actin cytoskeleton including loss of stress fibers, and enhanced motility during cell differentiation. Prevents myeloid differentiation by interfering with RUNX1 and reducing its transcription transactivation activity, but promotes proliferation of normal myeloid progenitors. Delays senescence. Promotes the proliferation of beta-cells in pancreatic islets of Langerhans. May play a role in the centrosome organization during the cell cycle phases (PubMed:23918663).
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Epigenetics and Nuclear Signaling; Cancer; Cell biology
Gene Names	CDK6
Clone No.	8G3
Image	



Western Blot

Positive WB detected in: HeLa whole cell lysate, Jurkat whole cell lysate, K562 whole cell lysate, 293 whole cell lysate

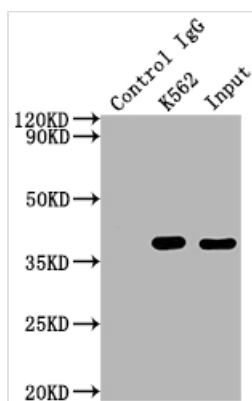
All lanes: CDK6 antibody at 1:2000

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 37 kDa

Observed band size: 37 kDa



Immunoprecipitating CDK6 in K562 whole cell lysate

Lane 1: Rabbit control IgG instead of CSB-RA555745A0HU in K562 whole cell lysate. For western blotting, a HRP-conjugated Protein G antibody was used as the secondary antibody (1/2000)

Lane 2: CSB-RA555745A0HU(2μg)+ K562 whole cell lysate(500μg)

Lane 3: K562 whole cell lysate (10μg)

Description

The CDK6 recombinant monoclonal antibody is synthesized using protein technology and DNA recombinant technology. Initially, mice were injected with a synthesized peptide derived from human CDK6 to stimulate the immune response. After a certain period, the spleen was extracted from the mice under aseptic conditions, and the total RNA was isolated from the spleen cells. Subsequently, the cDNA was synthesized through RNA reverse transcription and used as a template for the PCR amplification of the CDK6 antibody gene. The obtained CDK6 antibody gene was then cloned into a vector and transfected into host cells for cultivation. The CDK6 recombinant monoclonal antibody was purified from the supernatant of cell culture using affinity chromatography. It has been thoroughly validated and can be used for detecting human CDK6 protein in ELISA, WB, and IP experiments.

CDK6 is a protein that plays an important role in cell cycle regulation. It is a serine/threonine protein kinase that forms complexes with D-type cyclins and phosphorylates the retinoblastoma protein (RB). This phosphorylation event releases the transcription factor E2F, which activates genes involved in DNA replication and cell cycle progression from G1 to S phase. CDK6 is involved in regulating the transition from the G1 phase to the S phase of the cell cycle. It is also involved in cell differentiation, immune system function, and tumorigenesis. Dysregulation of CDK6 activity has been implicated in a number of cancers.