

# Anti-Cdk6 Picoband Antibody

Catalog # ABO12680

## Product Information

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| <b>Application</b>       | WB                                                                                                         |
| <b>Primary Accession</b> | <a href="#">Q00534</a>                                                                                     |
| <b>Host</b>              | Rabbit                                                                                                     |
| <b>Reactivity</b>        | Human, Rat                                                                                                 |
| <b>Clonality</b>         | Polyclonal                                                                                                 |
| <b>Format</b>            | Lyophilized                                                                                                |
| <b>Description</b>       | Rabbit IgG polyclonal antibody for Cyclin-dependent kinase 6(CDK6) detection. Tested with WB in Human;Rat. |

**Reconstitution** Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

## Additional Information

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| <b>Gene ID</b>                  | 1021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Other Names</b>              | Cyclin-dependent kinase 6, 2.7.11.22, Cell division protein kinase 6, Serine/threonine-protein kinase PLSTIRE, CDK6, CDKN6                                                                                                                                                                                                                                                                                                                                                          |
| <b>Calculated MW</b>            | 36938                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Application Details</b>      | Western blot, 0.1-0.5 µg/ml, Human, Rat                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Subcellular Localization</b> | Cytoplasm. Nucleus. Cell projection, ruffle. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Localized to the ruffling edge of spreading fibroblasts. Kinase activity only in nucleus. Localized to the cytosol of neurons and showed prominent staining around either side of the nucleus (By similarity). Present in the cytosol and in the nucleus in interphase cells and at the centrosome during mitosis from prophase to telophase (PubMed:23918663). . |
| <b>Tissue Specificity</b>       | Expressed ubiquitously. Accumulates in squamous cell carcinomas, proliferating hematopoietic progenitor cells, beta-cells of pancreatic islets of Langerhans, and neuroblastomas. Reduced levels in differentiating cells. .                                                                                                                                                                                                                                                        |
| <b>Source</b>                   | Eukaryota                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Protein Name</b>             | Cyclin-dependent kinase 6                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Contents</b>                 | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Immunogen</b>                | A synthetic peptide corresponding to a sequence at the N-terminus of human Cdk6 (119-150aa TETIKDMMFQLLRGLDFLHSHRVVHRDLKPQN), identical to the related mouse sequence.                                                                                                                                                                                                                                                                                                              |

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| <b>Purification</b>     | Immunogen affinity purified.                                                                                                                                                        |
| <b>Cross Reactivity</b> | No cross reactivity with other proteins.                                                                                                                                            |
| <b>Storage</b>          | At -20° C for one year. After r° Constitution, at 4° C for one month. It° Can also be aliquotted and stored frozen at -20° C for a longer time.Avoid repeated freezing and thawing. |

## Protein Information

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| <b>Name</b>              | CDK6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Synonyms</b>          | CDKN6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Function</b>          | 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 negatively regulates 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: <a href="#">23918663</a> ). |
| <b>Cellular Location</b> | Cytoplasm. Nucleus. Cell projection, ruffle. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Note=Localized to the ruffling edge of spreading fibroblasts. Kinase activity only in nucleus. Localized to the cytosol of neurons and showed prominent staining around either side of the nucleus (By similarity). Present in the cytosol and in the nucleus in interphase cells and at the centrosome during mitosis from prophase to telophase (PubMed:23918663). {ECO:0000250   UniProtKB:Q64261, ECO:0000269   PubMed:23918663}                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Tissue Location</b>   | Expressed ubiquitously. Accumulates in squamous cell carcinomas, proliferating hematopoietic progenitor cells, beta- cells of pancreatic islets of Langerhans, and neuroblastomas. Reduced levels in differentiating cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## Background

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Cell division protein kinase 6, also called Plstire, is an enzyme that in humans is encoded by the CDK6 gene. The protein encoded by this gene is a member of the cyclin-dependent protein kinase (CDK) family. Radiation hybrid analysis and inclusion within a mapped clone place the CDK6 gene at 7q21. Serine/threonine-protein kinase involved in the control of the cell cycle and differentiation and promotes G1/S transition. This gene also involved in initiation and maintenance of cell cycle exit during cell differentiation. It prevents cell proliferation and regulates negatively cell differentiation, but is required for the proliferation of specific cell types. In addition, CDK6 plays a role in promoting the proliferation of beta-cells in pancreatic islets of Langerhans.

## Images

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Western blot analysis of Cdk6 expression in rat pancreas extract (lane 1) and K562 whole cell lysates (lane 2). Cdk6 at 37KD was detected using rabbit anti- Cdk6 Antigen Affinity purified polyclonal antibody (Catalog # ABO12680) at 0.5 µg/mL. The blot was developed using chemiluminescence (ECL) method .

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.