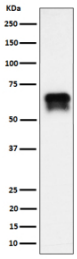
CDK16 Antibody / Cyclin-Dependent Kinase 16 Antibody [clone 29C70] (FY12470)

Catalog No.	Formulation	Size
FY12470	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	29C70
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	Q00536
Applications	Western blot: 1:500-1:2000
Limitations	This CDK16 Antibody / Cyclin-Dependent Kinase 16 Antibody is available for research use only.



CDK16 Antibody Human Pancreatic Cancer Cell WB. Western blot testing of human BxPC-3 cell lysate using CDK16 antibody detected a closely spaced doublet at approximately 65-70 kDa. Although the predicted molecular weight of CDK16 is approximately 56 kDa, phosphorylation-dependent electrophoretic mobility shifts are well documented for PCTAIRE1/CDK16, with the upper band likely representing a hyperphosphorylated form of the kinase. This CDK16 Antibody, also called a Cyclin-Dependent Kinase 16 Antibody, is useful for investigating atypical cyclin-dependent kinase signaling, phosphorylation-dependent regulation, intracellular trafficking, and cancer biology.

Description

CDK16 Antibody / Cyclin-Dependent Kinase 16 Antibody recognizes Cyclin-Dependent Kinase 16 (CDK16), the current

official name for the serine/threonine protein kinase historically known as PCTK1 or PCTAIRE1. CDK16 belongs to the PCTAIRE subfamily of cyclin-dependent kinases, a group of atypical CDKs that regulate specialized cellular functions rather than classical cell cycle progression. Activation of CDK16 depends primarily on its interaction with cyclin Y and associated regulatory proteins, enabling phosphorylation of substrates involved in intracellular signaling, membrane trafficking, and cytoskeletal organization. These distinctive biological roles have established CDK16 as an important target in studies of neuronal function, reproductive biology, and cancer research.

CDK16 is expressed most abundantly in brain and testis, where it regulates neurite extension, synaptic vesicle trafficking, exocytosis, endocytosis, and spermatogenesis. The kinase also contributes to intracellular membrane dynamics, protein trafficking, and cytoskeletal remodeling through phosphorylation of proteins involved in vesicular transport. Unlike canonical cyclin-dependent kinases that primarily govern cell division, CDK16 participates in specialized signaling pathways required for normal neuronal development and tissue-specific cellular function. These activities highlight the expanding roles of atypical cyclin-dependent kinases beyond cell cycle regulation.

Altered CDK16 expression and activity have been implicated in several malignancies, including colorectal, prostate, lung, and other cancers, where dysregulated kinase signaling may promote tumor cell proliferation, migration, invasion, and therapeutic resistance. Additional studies have linked CDK16 to neuronal development, male fertility, and regulation of cellular stress responses. Continued investigation of CDK16 is improving understanding of kinase-mediated control of intracellular signaling, membrane trafficking, and tissue homeostasis while identifying potential opportunities for therapeutic intervention.

Clone 29C70 is a recombinant rabbit monoclonal antibody developed for highly specific detection of CDK16 in research applications. Its recombinant design provides excellent specificity and lot-to-lot consistency for studies of cyclin-dependent kinase signaling, vesicle trafficking, neuronal biology, reproductive physiology, and cancer research. A CDK16 Antibody is a valuable research tool for investigating Cyclin-Dependent Kinase 16, atypical cyclin-dependent kinase signaling, intracellular trafficking, neuronal biology, and reproductive function.

For a broader overview of PCTK1 biology, PCTAIRE kinase function, and cyclin-dependent kinase signaling, see our PCTK1 Antibody / PCTAIRE Kinase Antibody page.

Application Notes

Optimal dilution of the CDK16 Antibody / Cyclin-Dependent Kinase 16 Antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human PCTAIRE1 was used as the immunogen for the CDK16 antibody.

Storage

Store the CDK16 antibody at -20oC.

Alternate Names

CDK16 antibody, Cyclin-Dependent Kinase 16 antibody, PCTK1 antibody, PCTAIRE1 antibody

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