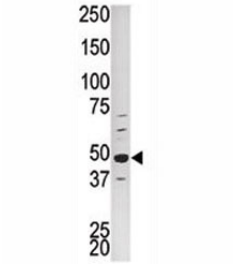
PCTAIRE1 Antibody / PCTAIRE Protein Kinase 1 Antibody (F40082)

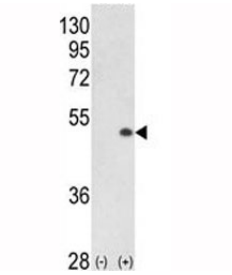
Catalog No.	Formulation	Size
F40082-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F40082-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse, Rat
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	Q9BRL4
Applications	Western blot: 1:1000
Limitations	This PCTAIRE1 Antibody / PCTAIRE Protein Kinase 1 Antibody is available for research use only.



PCTAIRE1 Antibody Human Liver Cancer Cell WB. Western blot testing of human HepG2 cell lysate using PCTAIRE1 antibody detected a prominent band at approximately 50 kDa. Although the calculated molecular weight of PCTAIRE1/CDK16 is approximately 56 kDa, electrophoretic mobility can vary depending on phosphorylation state and other post-translational modifications. This PCTAIRE1 Antibody, also called a PCTAIRE Protein Kinase 1 Antibody, is useful for investigating cyclin-dependent kinase signaling, intracellular trafficking, neuronal biology, and reproductive biology.



PCTAIRE1 Antibody Human PCTK1 Overexpression WB. Western blot analysis of human HEK293 cell lysates using PCTAIRE1 antibody detected a prominent band at approximately 50 kDa in cells transiently transfected with the PCTK1 gene (lane 2), while little to no signal was observed in non-transfected cells (lane 1). The increased signal following PCTK1 overexpression confirms specific detection of the target protein. This PCTAIRE1 Antibody, also called a PCTAIRE Protein Kinase 1 Antibody, is useful for investigating cyclin-dependent kinase signaling, intracellular trafficking, neuronal biology, and reproductive biology.

Description

PCTAIRE1 Antibody / PCTAIRE Protein Kinase 1 Antibody recognizes PCTAIRE1, the historical name for the serine/threonine protein kinase now officially designated Cyclin-Dependent Kinase 16 (CDK16). Although the current gene symbol is CDK16, the name PCTAIRE1 remains widely used throughout the scientific literature, particularly in studies of neuronal development, membrane trafficking, spermatogenesis, and kinase signaling. As a member of the PCTAIRE subfamily of cyclin-dependent kinases, PCTAIRE1 performs specialized regulatory functions that distinguish it from classical cyclin-dependent kinases primarily involved in cell cycle progression.

PCTAIRE Protein Kinase 1 is activated through interactions with cyclin Y and related regulatory proteins, enabling phosphorylation of substrates involved in intracellular signaling and vesicle dynamics. The kinase is highly expressed in brain and testis, where it contributes to neurite outgrowth, synaptic vesicle trafficking, exocytosis, endocytosis, cytoskeletal organization, and male germ cell development. These activities establish PCTAIRE1 as an important regulator of neuronal physiology, membrane transport, and reproductive biology while highlighting the functional diversity of the cyclin-dependent kinase family.

Aberrant expression or activity of PCTAIRE1 has been associated with several human diseases, including colorectal, prostate, lung, and other cancers, where altered kinase signaling may influence tumor growth, migration, invasion, and therapeutic resistance. Additional studies have implicated PCTAIRE1 in neurodevelopmental processes, neuronal survival, and regulation of cellular stress responses. Ongoing investigations continue to define the molecular mechanisms through which PCTAIRE1 integrates kinase signaling with intracellular membrane trafficking and tissue-specific cellular functions.

This rabbit polyclonal antibody was developed for specific detection of PCTAIRE1 in research applications. Its reactivity with human, mouse, and rat samples makes it well suited for studies of kinase signaling, neuronal biology, reproductive physiology, and vesicle trafficking in common experimental models. A PCTAIRE1 Antibody is a valuable research tool for investigating PCTAIRE Protein Kinase 1, cyclin-dependent kinase signaling, intracellular trafficking, neuronal function, and reproductive biology.

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

Titration of the PCTAIRE1 Antibody / PCTAIRE Protein Kinase 1 Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 357-386 from the human protein was used as the immunogen for this PCTAIRE1 antibody.

Storage

Aliquot the PCTAIRE1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

PCTAIRE1 antibody, PCTAIRE Protein Kinase 1 antibody, PCTK1 antibody, CDK16 antibody, Cyclin-Dependent Kinase 16 antibody

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