

**PCTAIRE 1 Antibody**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R	Endogenous	65	Rabbit	#Q00536	5127

**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation

**Dilution**

1:1000  
1:50

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

PCTAIRE 1 Antibody detects endogenous levels of total PCTAIRE 1.

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg98 of human PCTAIRE 1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

**Background**

Three distinct PCTAIRE isoforms (PCTAIRE 1, PCTAIRE 2 and PCTAIRE 3) have been identified in humans and belong to the CDK family of serine/threonine protein kinases. These proteins have a core kinase domain flanked by unique amino- and carboxy-terminal domains. CDK proteins are known to regulate the cell cycle. All three PCTAIRE isoforms are abundantly expressed and catalytically active in post-mitotic brain, suggesting that they may function in processes other than cell division (1). PCTAIRE 1 is a cytoplasmic phosphoprotein whose kinase activity peaks in G2 and S phase (2). While one study indicates that noncovalent interactions with a regulatory component (such as a cyclin) are necessary for catalytic activity of PCTAIRE 1, others show that the monomeric protein is fully active (3). The Cdk5/p25 complex phosphorylates PCTAIRE 1 at Ser95, enhancing its kinase activity (4).

**Background References**

1. Meyerson, M. et al. (1992) *EMBO J.* 11, 2909-2917.
2. Charrasse, S. et al. (1999) *Cell Growth Differ.* 10, 611-620.
3. Graeser, R. et al. (2002) *J. Cell Sci.* 115, 3479-3490.
4. Cheng, K. et al. (2002) *J. Biol. Chem.* 277, 31988-31993.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IP:** Immunoprecipitation

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat

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