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# PCTAIRE3 (PCTK3) Antibody (N-term)
**Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP7549a**

## Specification

### PCTAIRE3 (PCTK3) Antibody (N-term) - Product Information

| | |
|---|---|
| Application | **WB, IHC-P,E** |
| Primary Accession | Q07002 |
| Other Accession | NP_002587 |
| Reactivity | **Human** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |
| Calculated MW | **54424** |
| Antigen Region | **25-55** |

### PCTAIRE3 (PCTK3) Antibody (N-term) - Additional Information

**Gene ID** 5129

**Other Names**
Cyclin-dependent kinase 18, Cell division protein kinase 18, PCTAIRE-motif protein kinase 3, Serine/threonine-protein kinase PCTAIRE-3, CDK18, PCTAIRE3, PCTK3

**Target/Specificity**
This PCTAIRE3 (PCTK3) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 25-55 amino acids from the N-terminal region of human PCTAIRE3 (PCTK3).

**Dilution**
WB~~1:1000
IHC-P~~1:50~100
E~~Use at an assay dependent concentration.

**Format**
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**
PCTAIRE3 (PCTK3) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### PCTAIRE3 (PCTK3) Antibody (N-term) - Protein Information

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**Name** CDK18

**Synonyms** PCTAIRE3, PCTK3

**Function** May play a role in signal transduction cascades in terminally differentiated cells.

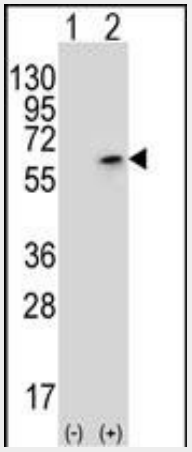
**Tissue Location**
Isoform 2 expression is limited to several subcortical nuclei of the basal gangli and the spinal cord. Isoform 1 is widely expressed.

## PCTAIRE3 (PCTK3) Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## PCTAIRE3 (PCTK3) Antibody (N-term) - Images




Western blot analysis of PCTK3 (arrow) using rabbit polyclonal PCTK3 Antibody (N40) (Cat. #AP7549a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the PCTK3 gene.

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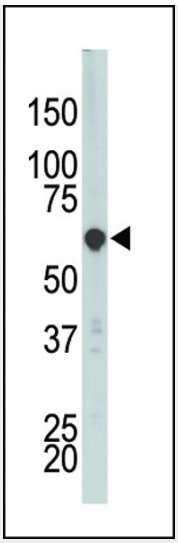
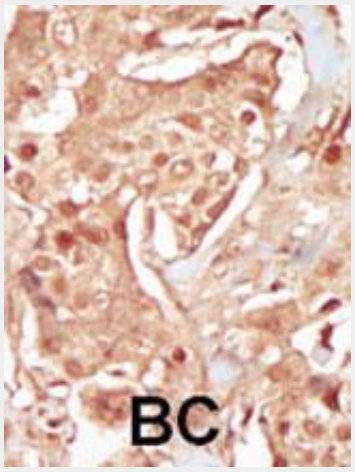



The anti-PCTK3 Pab (Cat. #AP7549a) is used in Western blot to detect PCTK3 in HL-60 cell lysate.




Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

**PCTAIRE3 (PCTK3) Antibody (N-term) - Background**

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The STE group (homologs of yeast Sterile 7, 11, 20 kinases) consists of 50 kinases related to the mitogen-activated protein kinase (MAPK) cascade families (Ste7/MAP2K, Ste11/MAP3K, and Ste20/MAP4K). MAP kinase cascades, consisting of a MAPK and one or more upstream regulatory kinases (MAPKKs) have been best characterized in the yeast pheromone response pathway. Pheromones bind to Ste cell surface receptors and activate yeast MAPK pathway.
The CMGC group consists of 60 kinases including the cyclin-dependent kinase (CDK) and close relatives family, the MAP kinase (ERK) family, the glycogen synthase kinase 3 (GSK3) family, and the Cdc2-like kinase (CLK) family.

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## PCTAIRE3 (PCTK3) Antibody (N-term) - References

Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).
Meyerson, M., et al., EMBO J. 11(8):2909-2917 (1992).