



Qty: 100 µg/400 µL

Rabbit anti-PCTAIRE 3

Catalog No. 42-3000

Lot No.

## Rabbit anti-PCTAIRE 3

### FORM

This polyclonal antibody is supplied as a 400 µL aliquot at a concentration of 0.25 mg/mL in phosphate buffered saline (pH 7.4) containing 0.1% sodium azide. This antibody is epitope-affinity purified from rabbit antiserum.

PAD: ZMD.550

### IMMUNOGEN

Synthetic peptide derived from the C-terminal region of human PCTAIRE 3, which differs from mouse and rat by one non-conservative amino acid

### SPECIFICITY

This antibody is specific for PCTAIRE 3 (PCTK3), and does not cross-react with PCTAIRE 1 or PCTAIRE 2. On Western blots, it identifies the target band at ~82 kDa.

### REACTIVITY

Reactivity has been confirmed with GFP-PCTAIRE 3-transfected COS-7 cell lysates, recombinant mouse PCTAIRE 3 and recombinant human PCTAIRE 3 by Western blotting. Based on amino acid sequence homology, reactivity with rat is also expected.

Sample	Western Blotting
Human	+++
Mouse	+++
Rat	ND
Immunogen	N/A

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

### USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined.

**Western Blotting:** 2 µg/mL

### STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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**BACKGROUND**

PCTAIRE 3 is a member of the PCTAIRE subfamily of cdc2-related serine/threonine protein kinases. PCTAIRE 1 and -3 are 65% homologous and are composed of a core 295-residue kinase domain flanked by unique N-terminal and C-terminal domains.<sup>1</sup> The kinase domains are approximately 50-55% homologous to members of the cdc2/CDC28 kinase gene family, and each contains a cysteine-to-serine substitution within the conserved PSTAIRE motif. PCTAIRE 3 has a restricted pattern of expression with a single 3.0-kb mRNA detected in brain, kidney and intestine.<sup>2</sup> Two isoforms of PCTAIRE 3 exist.<sup>3</sup> The major transcript is designated PCTAIRE 3a, with an open reading frame of 474 amino acids. Transcripts for PCTAIRE 3a are present throughout the brain. A second transcript that contains an insert that adds an additional 90 nucleotides to the third exon of the gene is designated PCTAIRE 3b. This transcript encodes a polypeptide of 504 amino acids. Expression of PCTAIRE 3b is limited to the subcortical nuclei of the basal gangli and the spinal cord. Substantial levels of this transcript are not evident outside of the central nervous system. Primary sequence comparisons between different cdc2-related serine/threonine protein kinases reveal that these proteins are most heterogeneous in their N-terminal domains.

**REFERENCES**

1. Okuda T, et al. *Oncogene* 11;2249-2258, 1992.
2. Herskovits AZ, et al. *Hybridoma* 24(2):98-105, 2005.
3. Herskovits AZ, et al. *Gene* 328:59-67, 2004.

**RELATED PRODUCTS**

<b>Product</b>	<b>Conjugate</b>	<b>Cat. No.</b>
Protein A	Sepharose <sup>®</sup> 4B	10-1041
rec-Protein G	Sepharose <sup>®</sup> 4B	10-1241

<b>Conjugate</b>	<b>ZyMAX<sup>™</sup> Goat x Rabbit IgG (H+L)</b>	<b>ZyMAX<sup>™</sup> Goat x Mouse IgG (H+L)</b>
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy <sup>™</sup> 3	81-6115	81-6515
Cy <sup>™</sup> 5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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