



Qty: 100 µg/400 µL

Rabbit anti-PDGF-D

Catalog No. 40-2100

Lot No.

## Rabbit anti-PDGF-D

### 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.440

### IMMUNOGEN

Synthetic peptide derived from the C-terminal region of the human PDGF-D (platelet derived growth factor D, iris-expressed growth factor, spinal cord-derived growth factor-B) protein, which differs from mouse and rat by one amino acid replacement.

### SPECIFICITY

This antibody reacts with the human, mouse and rat PDGF-D proteins. On Western blots, it identifies the target band at ~50 kDa.

### REACTIVITY

Reactivity has been confirmed with human NTERA-2 (NT2/D1), SK-OV-3, U251 and A172 cell lysates and rat ovary, mouse testis, and mouse fetal brain homogenates.

Sample	Western Blotting	Immunoprecipitation
Human	+++	ND*
Mouse	+++	ND
Rat	+++	ND

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

\*The molecular weight of the target band is too close to that of the IgG heavy chain of this antibody, so IP tests were inconclusive under conditions tested.

### 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. The following concentration ranges are recommended starting points for this product.

**Western Blotting:** 1-3 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**

The platelet-derived growth factor (PDGF) family consists of four members; PDGF-A, PDGF-B, PDGF-C and PDGF-D (spinal cord-derived growth factor-B or iris-expressed growth factor).<sup>1,2</sup> PDGF members form disulphide-bonded dimeric isoforms, which are important for growth, survival and function in several types of connective tissue cells.<sup>3,4</sup> Their biological effects are mediated via two tyrosine kinase receptors, PDGFR- $\alpha$  and PDGFR- $\beta$ , and PDGF-mediated signaling is critical for development of many organ systems.<sup>1</sup>

PDGF-D has a two-domain structure similar to PDGF-C and is secreted as a disulphide-linked homodimer, PDGF-DD.<sup>3</sup> PDGF-D induces cellular transformation and promotes tumor growth by accelerating the proliferation rate of tumor cells and by stimulation of tumor neovascularization.<sup>5</sup> PDGF-D may play a role in the development of brain tumors.<sup>6</sup> The potential oncogenic activity of PDGF-DD may be important for the development and/or progression of prostate cancer.<sup>7</sup> PDGF-D is expressed in fibroblastic adventitial cells, cultured endothelial cells and in a variety of tumor cell lines including those derived from ovarian, renal and lung cancers, as well as from astrocytomas and medulloblastomas.<sup>8,9</sup> PDGF-D is expressed in the human kidney.<sup>10</sup>

**REFERENCES**

1. Aase K, et al. *Mech Dev* 110:187-191, 2002.
2. Hamada T, et al. *Biochem Biophys Res Comm* 280:733-737, 2001.
3. Bergsten E, et al. *Nat Cell Biol* 3:512-516, 2001.
4. Fredriksson L, et al. *Cytokine Growth Factor Rev* 15:197-204, 2004.
5. Li H, et al. *Oncogene* 22:1501-1510, 2003.
6. Lokker NA, et al. *Cancer Res* 62:3729-3735, 2002.
7. Ustach CV, et al. *Cancer Res* 64:1722-1729, 2004.
8. LaRochelle WJ, et al. *Cancer Res* 62:2468-73, 2002.
9. Uutela M, et al. *Circulation* 103:2242-7, 2001.
10. Changsirikulchai S, et al. *Kidney Int* 62:2043-2054, 2002.

**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>
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TRITC	81-6114	81-6514
Cy <sup>™</sup> 3	81-6115	81-6515
Cy <sup>™</sup> 5	81-6116	81-6516
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Biotin	81-6140	81-6540

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