

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human VEGF/PIGF heterodimer in direct ELISAs and Western blots. This antibody does not detect either subunit alone. In direct ELISAs, this antibody does not cross-react with recombinant human (rh) VEGF <sub>121</sub> , rhVEGF <sub>165</sub> , rhVEGF <sub>206</sub> , rhCTGF, rhLDGF, rhPIGF, rhVEGF-B <sub>186</sub> , rhVEGF-C, rhVEGF-D, rhPDGF, rmVEGF <sub>115</sub> , rmVEGF <sub>120</sub> , rmVEGF <sub>164</sub> , rmPIGF-2, rVEGF <sub>164</sub> , or rzfVEGF.
<b>Source</b>	Monoclonal Mouse IgG <sub>2A</sub> Clone # 146213
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human VEGF/PIGF heterodimer Ala27-Arg191 (VEGF) & Ala21-Arg149 (PIGF) Accession # AAM03108 (VEGF) & AAD30179 (PIGF)
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Western Blot</b>	1 µg/mL	Recombinant Human VEGF/PIGF Heterodimer (Catalog # 297-VP)

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

The disulfide-linked homodimeric proteins vascular endothelial growth factor (VEGF) and placenta growth factor (PIGF) are both members of the VEGF family of growth factors. VEGF and PIGF proteins share primary structural as well as limited amino acid sequence homology with the A and B chains of PDGF. All eight cysteine residues involved in intra- and inter-chain disulfides are conserved among these growth factors. In their PDGF-like regions, VEGF and PIGF also share approximately 53% amino acid sequence similarity. *E. coli*-expressed monomers of PIGF and VEGF can be refolded in vitro to form PIGF/VEGF heterodimers. The purified recombinant VEGF/PIGF heterodimers and VEGF homodimers have potent mitogenic effects on endothelial cells. However, VEGF/PIGF heterodimers display approximately 50-fold less mitogenic activity than VEGF homodimers. In contrast, PIGF homodimers have little or no mitogenic effect on endothelial cells. The presence of natural VEGF/PIGF heterodimers in the conditioned media of a number of human tumor cell lines has been demonstrated using a VEGF/PIGF heterodimer specific ELISA.