

**DESCRIPTION**

<b>Source</b>	Human embryonic kidney cell, HEK293-derived human PDGFRL protein		
	Human PDGFRL (Gln22-Ser375) Accession # Q15198	IEGRMD	Human IgG <sub>1</sub> (Pro100-Lys330)
	N-terminus		C-terminus
<b>N-terminal Sequence Analysis</b>	Gln22 inferred from enzymatic pyroglutamate treatment revealing His23.		
<b>Structure / Form</b>	Disulfide-linked homodimer		
<b>Predicted Molecular Mass</b>	68 kDa		

**SPECIFICATIONS**

<b>SDS-PAGE</b>	69-84 kDa, reducing conditions
<b>Activity</b>	Measured by its ability to inhibit proliferation of HCT-116 human colorectal carcinoma cells. The ED <sub>50</sub> for this effect is 1.5-9 µg/mL.
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 500 µg/mL in PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <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>• 3 months, ≤ -20 °C under sterile conditions after reconstitution.</li> </ul>

**DATA**

<p><b>Bioactivity</b></p> <p>Mean RFU</p> <p>Recombinant Human PDGFRL (µg/mL)</p>	<p>Recombinant Human PDGFRL Fc Chimera (Catalog # 1723-PR) inhibits HCT-116 human Colorectal carcinoma proliferation. The ED<sub>50</sub> for this effect is 1.5-9 µg/mL.</p>	<p><b>SDS-PAGE</b></p> <p>2 µg/lane of Recombinant Human PDGFRL Fc Chimera was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 69- 84 kDa and 140- 170 kDa, respectively.</p>
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**BACKGROUND**

Platelet-derived growth factor receptor-like protein is a 67 kDa glycoprotein protein consisting of two Ig-like C2-type domains. By sequence similarity, human PDGFRL is 90% similar to the mouse version and 91% similar to that of the rat. It is a secreted protein related to the class III subfamily of receptor tyrosine kinases (RTK), the platelet-derived growth factor receptors (1-5). PDGFRL is a tumor suppressor active in the tumor-suppression network and implicated in colorectal cancer, and a decrease in PDGFRL expression levels has been observed in breast cancer (1). A variant of PDGFRL is found to play a role in the development of Behçet disease, a complex immunoregulatory disease (6). The autoimmune role of PDGFRL is also supported by its up-regulation in a mouse model for Rheumatoid Arthritis (7). Study also showed that PDGFRL may play a role in chondrocyte proliferation and differentiation.

**References:**

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6. Hou, S. *et al.* (2013). *Human Mutat.* **34**:74.
7. Fujikado, N. *et al.* (2006). *Arthritis Res. & Ther.* **8**:R100.
8. Kawata, K. *et al.* (2017) *J Cell Biochemistry.* **118**:4033.