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<b>Products</b>	Human PDGF-AA, research grade. Recombinant human platelet-derived growth factor AA.								
	<table border="1"> <thead> <tr> <th>Content in µg</th><th>Order no.</th></tr> </thead> <tbody> <tr> <td>2</td><td>130-093-977</td></tr> <tr> <td>10</td><td>130-093-978</td></tr> <tr> <td>100</td><td>130-108-983</td></tr> </tbody> </table>	Content in µg	Order no.	2	130-093-977	10	130-093-978	100	130-108-983
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2	130-093-977								
10	130-093-978								
100	130-108-983								
<b>Biological activity</b>	The ED <sub>50</sub> is ≤3.3 ng/mL corresponding to an activity of ≥3×10 <sup>5</sup> U/mg. ▲ <b>Note:</b> The ED <sub>50</sub> is determined by proliferation assay using BALB/c 3T3 cells.								
<b>Primary structure</b>	Two identical, non-glycosylated covalently-linked polypeptide chains (125 amino acid residues each).								
<b>Molecular mass</b>	28.5 kDa.								
<b>Source</b>	Produced in <i>E. coli</i> .								
<b>Product format</b>	Lyophilized from a filtered (0.2 µm) buffer solution.								
<b>Stabilizer</b>	None.								
<b>Purity</b>	>97% as determined by SDS-PAGE analysis.								
<b>Endotoxin level</b>	Low endotoxin (<1.0 EU/µg cytokine) as determined by Limulus Amebocyte Lysate (LAL) assay.								
<b>Storage</b>	Lyophilized Human PDGF-AA, research grade should be stored at -20 °C. The expiration date is indicated on the vial label. Upon reconstitution aliquots should be stored at -20 °C or below. Avoid repeated freeze-thaw cycles.								
<b>Reconstitution</b>	It is recommended to reconstitute lyophilized Human PDGF-AA, research grade with deionized sterile-filtered water to a final concentration of 0.05–1.0 mg/mL in a minimal volume of 50 µL. Further dilutions should be prepared with 0.1% bovine serum albumin (BSA) or human serum albumin (HSA) in phosphate-buffered saline.								

#### 1.1 Background information

Platelet-derived growth factor-AA (PDGF-AA) is a dimeric protein composed by two identical A subunits. The members of the PDGF family form disulfide-linked homodimers such as PDGF-AA and

-BB, and one heterodimer (PDGF-AB). They are stored in platelet α-granules, and after release they signal through two receptors PDGFRA and PDGFRβ. PDGF-AA signals only through PDGFRA and induces mesenchymal cell growth, morphogenesis, and migration, and is involved in development of several cell types and tissues. A dysregulation of PDGFs was shown in diseases such as diabetes, and in deficit of bone formation and reparation.

#### 1.2 Applications

Human PDGF-AA can be used for a variety of applications, including:

- MSC culture and investigation of MSC development.
- Studies of angiogenesis.
- Investigation of PDGFR signaling.

Optimal concentration for a specific application should be determined by a dose-response experiment.

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