

# Recombinant Rat Platelet-derived Growth Factor-AA (rRtPDGF-AA)

## ChemWhat Technical Data Sheet (TDS)

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<b>Catalog Number:</b>	145-14
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 25.3 kDa, a disulfide-linked homodimeric protein containing two 111 amino acid residues polypeptide (A chain).
<b>Quantity:</b>	2µg/10µg/1000µg
<b>AA Sequence:</b>	MSIEEAIPAV CKTRTVIYEI PRSQVDPTSA NFLIWPPCVE VKRCTGCCNT SSVKQCPSRV HHRSVKVAKV EYVRKKPKLK EVQVRLEEHL ECACATSNLN PDHREEETDV R
<b>Purity:</b>	> 98 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using murine Balb/c 3T3 cells is less than 5.0 ng/ml, corresponding to a specific activity of > 2.0 × 10 <sup>5</sup> IU/mg.
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 30 % Acetonitrile and 0.1 % TFA.
<b>Endotoxin:</b>	Less than 0.1 EU/µg of rRtPDGF-AA as determined by LAL method.
<b>Reconstitution:</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in 4mM HCl to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
<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>	<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>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>
<b>Usage:</b>	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>

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### ***Rat Platelet-derived Growth Factor-AA***

Platelet-derived growth factor (PDGF) present in serum but absent from plasma was first discovered in animal study by Lynch and co-workers in the late 1980s. It is a disulfide-linked dimer consisting of two peptides-chain A and chain B. PDGF has three subforms: PDGF-AA, PDGF-BB, PDGF-AB. It is involved in a number of biological processes, including hyperplasia, embryonic neuron development, chemotaxis, and respiratory tubule epithelial cell development. The function of PDGF is mediated by two receptors (PDGFR- $\alpha$  and PDGFR- $\beta$ ).