

# DATA SHEET

Version: 01  
Revision date: 23/05/2025

## 1. Identification

<b>Product name</b>	<b>Recombinant Human PDGF-BB</b> 500 µg
<b>Cat. No</b>	CR013

## 2. Description

Canvax Recombinant Human PDGF-BB is a high-purity, carrier-free, disulfide-linked homodimer produced in *E. coli* and designed to support robust proliferation, migration and survival in mesenchymal and neuronal cell types. This biologically active 25 kDa PDGF-BB dimer promotes expansion of MSCs, enhances osteogenic and neuronal differentiation, and is widely used in tissue repair, angiogenesis and wound-healing studies.

Its animal-origin-free formulation, clean SDS-PAGE profile and stringent QC (purity, endotoxin, sterility and mycoplasma) ensure consistent performance in defined culture systems. Delivered as a stable lyophilized powder, PDGF-BB enables easy handling, efficient reconstitution and reliable lot-to-lot reproducibility for demanding research workflows.

A GMP-grade version suitable for therapeutic and regulated manufacturing environments is available upon request

## 3. Product information

<b>Expression system</b>	<i>E. coli</i> recombinant production.
<b>Sequence</b>	Human PDGF-BB homodimer (PDGF-B / PDGF-B), UniProt P01127.
<b>Molecular Weight</b>	~25 kDa (dimer, non-reducing) ~13 kDa per monomer (reducing)
<b>Structure</b>	Disulfide-linked homodimer of PDGF-B chains
<b>Purity</b>	≥ 98% (SDS-PAGE).
<b>Identity</b>	Confirmed by mass spectrometry.
<b>Endotoxin</b>	<0.05 EU/µg protein.
<b>Bioactivity</b>	Validated using NFAT-responsive luciferase assay in HEK293 cells expressing PDGFRB.
<b>Form</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from acetonitrile and TFA
<b>Reconstitution</b>	Dissolve in sterile water (>50 µg/mL)
<b>Recovery</b>	>95% after reconstitution.
<b>Lot-to-lot consistency</b>	Ensured through controlled manufacturing and analytical release testing.

## 4. Storage specifications

Store the lyophilized protein at -20 °C for general use. Avoid repeated freeze-thaw cycles. Once reconstituted, aliquot and store at -80 °C.



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### 5. Applications

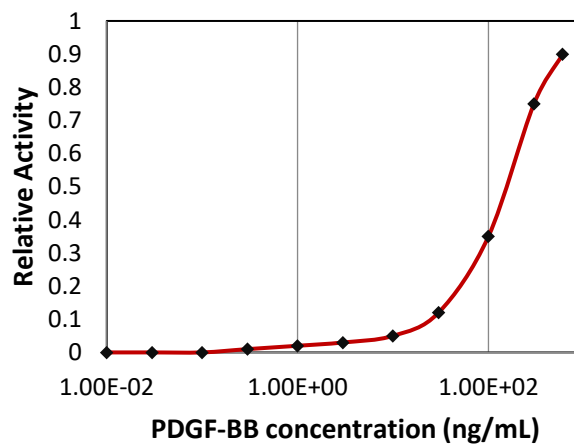
- Proliferation, migration and survival of mesenchymal cell types (fibroblasts, MSCs, VSMCs).
- Expansion of iPSC/ESC and MSC cultures.
- Neural stem-cell proliferation and neuronal differentiation.
- Osteogenic differentiation and tissue-engineering workflows.
- Angiogenesis, wound-healing and regenerative biology models.

A GMP-grade variant is also available for cell-therapy, regenerative-medicine and advanced therapeutic manufacturing workflows.

### 6. Bioactivity assay

PDGF-BB activity was determined using an NFAT-responsive luciferase assay in HEK293 cells transfected with PDGFRB. Cells were treated in triplicate with a serial dilution of PDGF-BB for 6 hours. Firefly luciferase activity was measured and normalized to the maximum response..  
EC<sub>50</sub> ≈ 12.7 ng/mL

#### PDGF-BB Bioactivity



### 7. Further information

**RUO** This product is sold as RUO (Research Use Only), not for diagnostic or therapeutic use in humans or animals. GMP-grade production can be provided on request. Full regulatory documentation is available for GMP-manufactured batches. Contact us ([info@canvaxbiotech.com](mailto:info@canvaxbiotech.com)).

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