

# Human Platelet-Derived Growth Factor BB (hPDGF-BB)



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Kit Includes	Petite Kit (P) Quantity	Small Kit (S) Quantity
LumiGLO® Reagent A (20X)	1 x 5 ml	1 x 25 ml
Peroxide Reagent B (20X)	1 x 5 ml	1 x 25 ml

  

<b>MW (kDa):</b> 14	<b>UniProt ID:</b> #P01127	<b>Entrez-Gene Id:</b> 5155
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## Background

PDGF-BB is a cystine-linked homodimer PDGF family member with key roles in development, cell proliferation, cell survival, and angiogenesis (1,2). PDGF-BB is expressed by vascular endothelium, megakaryocytes and Leydig cells (2). PDGF-BB targets pericytes, fibroblasts, monocytes and other cell types (1-3). PDGF induces fibroblast growth and migration (3) and is a chemoattractant for monocytes and granulocytes. Precursor PDGF-BB is cleaved intracellularly to generate a form that contains a carboxy-terminal stretch that serves to retain PDGF-BB in the extracellular matrix. In a second cleavage event, the carboxy-terminal stretch is removed extracellularly to generate mature PDGF-BB (1,2). PDGF-BB binds to PDGFRβ and induces receptor dimerization. Signaling is through the PI3K/Akt, JNK, and PLCγ pathways (1, 2). PDGF-BB may have a role in some cancer types (2).

## Endotoxin

Less than 0.01 ng endotoxin/1 µg hPDGF-BB.

## Purity

>98% as determined by SDS-PAGE of 6 µg reduced (+) and non-reduced (-) recombinant hPDGF-BB. All lots are greater than 98% pure.

## Source / Purification

Recombinant human PDGF-BB (hPDGF-BB) Ser82-Thr190 (Accession #NP\_002599) was produced in *E. coli* at Cell Signaling Technology.

## Bioactivity

The bioactivity of recombinant hPDGF-BB was determined in a NIH/3T3 cell proliferation assay. The ED<sub>50</sub> of each lot is between 4.0 - 15 ng/ml.

## Background References

1. Hoch, R.V. and Soriano, P. (2003) *Development* 130, 4769-84.
2. Andrae, J. et al. (2008) *Genes Dev* 22, 1276-312.
3. Siegbahn, A. et al. (1990) *J Clin Invest* 85, 916-20.

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