
DNA Aptamer against Platelet Derived Growth Factor BB

SKU# APT-013: DNA Aptamer against Platelet Derived Growth Factor BB (PDGF-BB)

Background

Platelet-derived growth factor BB (**PDGF-BB**) is a protein that promotes cell growth and tissue repair. It's produced by platelets, macrophages, mast cells, and hepatocytes. PDGF-BB has many roles, including:

- **Bone formation:** PDGF-BB promotes osteoblast development and bone formation. In animal studies, PDGF-BB improved bone density and fracture healing.
- **Wound healing:** PDGF-BB promotes the infiltration of neutrophils and macrophages to the site of injury. It also stimulates fibroblasts to secrete new extracellular matrix. PDGF-BB-treated wounds have increased numbers of fibroblasts and granulation tissue.
- **Skin rejuvenation:** PDGF-BB can be used in microneedling to improve skin texture and tone.
- **Angiogenesis:** PDGF-BB can stimulate angiogenesis in vivo and in tumors.
- **Brain injury:** PDGF influences the proliferation of neuroglia in the brain, and can help with brain injury.

Aptamer type: DNA aptamer

Aptamer length: 40 bp

Affinity KD: 3.0 nM

Kit contents

The following components are included in the Kit.

	Component	Quantity
APT-013-10	Single strand DNA, lyophilized powder	10 nmol
APT-013-30	Single strand DNA, lyophilized powder	30 nmol

- Store at -20°; reagents are guaranteed stable for 12 months when properly stored.

References

Cho, M., et al., Quantitative selection of DNA aptamers through microfluidic selection and high- throughput sequencing, Proc. Natl. Acad. Sci. U. S. A. 107 (2010) 15373–15378.