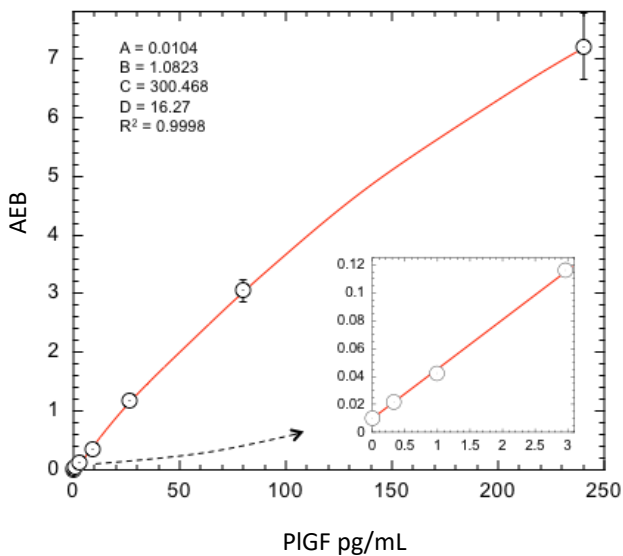


Description

Placental growth factor (PIGF) is a member of the vascular endothelial growth factor (VEGF) family of cytokines, which play important roles in the development and growth of the vascular or lymphatic endothelia. PIGF is secreted as a homodimer, but may also form PIGF/VEGF heterodimers and can synergistically enhance VEGF-induced angiogenesis and vascular permeability. While PIGF is expressed mainly in placental trophoblast during pregnancy, it is also expressed in various cell types including vascular cells, fibroblasts, leukocytes, hepatocytes, bone marrow-derived cells, neurons, epithelial cells and tumor cells. Serum levels of PIGF peak during pregnancy at weeks 26 – 28, and low serum PIGF is associated with the development of preeclampsia later in pregnancy. PIGF is a potential prognostic marker for tumor progression in several types of cancer, including renal, colorectal, gastric, breast, and lung. PIGF also plays a role in inflammatory conditions such as atherosclerosis and rheumatoid arthritis, where measurement of serum levels can enhance biomarker analysis of disease progression. In addition, PIGF is elevated in individuals with Sickle Cell Disease (SCD) and thought to play a role in the pathophysiology of pulmonary hypertension in patients with SCD.

Calibration Curve: Four-parameter curve fit parameters are depicted.



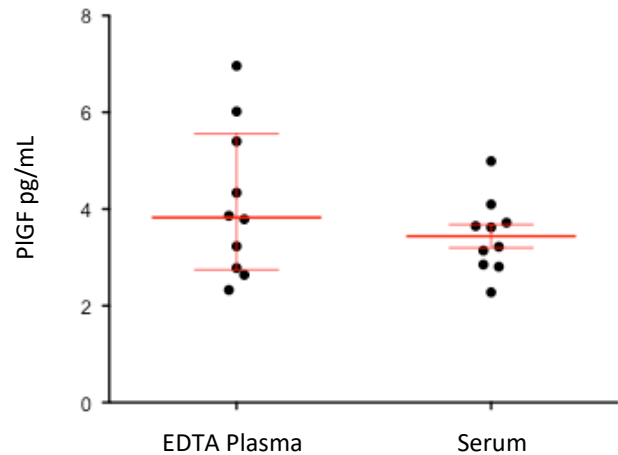
Lower Limit of Quantification (LLOQ): Triplicate measurements of serially diluted calibrator were read back on the calibration curve over 1 reagent lot on 1 instrument (5 runs total).

Limit of Detection (LOD): Calculated as 2.5 standard deviations from the mean of background signal read back on each calibration curve over 1 reagent lot on 1 instrument (5 runs total).

LLOQ	0.30 pg/mL
LOD	0.064 pg/mL range 0.018–0.127 pg/mL
Dynamic range (serum and plasma)	0–960 pg/mL
Diluted Sample volume*	120 µL per measurement
Tests per kit	192

*See Kit Instruction for details

Endogenous Sample Reading: Healthy donor matched EDTA plasma (n=10) and serum (n=10) were measured. Error bars depict median with interquartile range.



Sample Type	Median PIGF pg/mL	% Above LOD
Serum	3.42	100%
EDTA Plasma	3.82	100%

Precision: Representative precision was estimated with repeated assay of serum panels using one instrument and one reagent lot. Within-run and between-run CVs are depicted in the following table. Within-run CVs reflect average CVs across 5 experiments of 3 replicates each.

Sample	Mean (pg/mL)	Within run CV	Between run CV
Serum Panel 1	4.15	3.8%	18.0%
Plasma Panel 2	8.46	18.6%	13.6%
Serum Panel 3	48.99	13.7%	10.8%

Spike and Recovery: PIGF spiked into 2 serum and 2 plasma samples at 2 levels.

Dilution Linearity: Spiked serum was diluted 2x serially from MRD (4x) to 256x with Sample Diluent.

Spike and Recovery (Serum/Plasma)	Mean = 86.7% Range: 76.1–98.7%
Dilution Linearity (256x)	Mean = 112% Range: 86–158%