



R&D Systems Quantikine® ELISAs

The standard by which immunoassays are measured

Quality

Each Quantikine ELISA kit is fully validated, ready to run, and quality tested. For results you can trust, we offer:

- Specificity** Each kit is tested against a panel of related molecules to ensure minimal cross-reactivity or interference.
- Reproducibility** Each kit lot is tested against a previous lot to ensure minimal variation.
- Accuracy** Spike recovery experiments and dilution linearity experiments ensure sample values recovered are accurate in all validated sample types.
- Reliability** Each kit diluent is optimized to prevent false positive and false negative results associated with matrix effects.
- Sensitivity** Antibodies are selected to ensure high signal, low background, and the best possible sensitivity.
- Calibration** The standard is calibrated against highly purified material. Where available, correlation to WHO international reference material is provided. All future lots are compared to the master calibrator to ensure no drift in sample values occur.

Selection

R&D Systems offers a range of immunoassays for the quantification of many analytes in various biological fluids, including serum, plasma, cell culture supernates, and more.

Kits include colorimetric, chemiluminescent, and fluorometric assays for:

- Adhesion molecules
- Chemokines
- Growth factors
- Hematopoietic factors
- Hormones
- Interleukins
- IL-10/Interferon family
- Obesity & diabetes-related factors
- Proteases & inhibitors
- TGF-β superfamily
- TNF superfamily
- VEGF/PDGF family

Performance

Each Quantikine kit undergoes rigorous quality control testing to provide outstanding performance. Reproducibility is assured by testing new kit lots against previous lots (Figure 1).

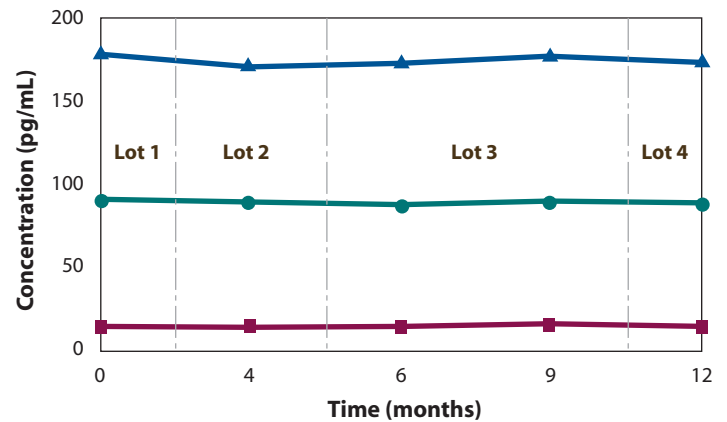


Figure 1. Reproducibility and stability of the human IL-6 Quantikine ELISA (Catalog # D6050). Three samples with differing IL-6 concentrations (colored lines) were assayed using four different ELISA kit lots over a 12 month period.



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The extensive range and exceptional reputation for quality have made Quantikine Kits the most referenced assays available.

Results

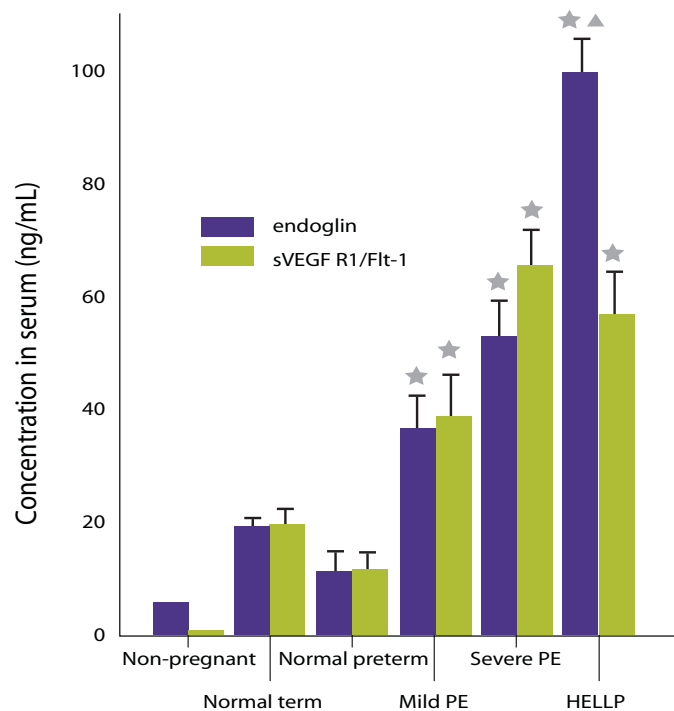
Endoglin, sVEGF R1/Flt-1, and PIGF

Researchers from Harvard Medical School have recently used the Endoglin/CD105 Quantikine ELISA Kit (Catalog # DNDG00) to demonstrate a two- and three-fold endoglin increase in preterm and term pregnancy, respectively, compared to non-pregnant states.¹ Furthermore, mild preeclampsia, severe preeclampsia, and HELLP syndrome (hemolysis, elevated liver enzymes, low platelets) are accompanied by a significant three-, five-, and ten-fold increase in circulating endoglin, respectively, as detected by the Quantikine Kit. These elevated endoglin levels closely parallel increases in sVEGF R1/Flt-1, also assessed using R&D Systems Quantikine ELISA Kit (Catalog # DVR100B; see figure).

An additional report used R&D Systems Quantikine ELISA kits to demonstrate a pregnancy-related increase in plasma placental growth factor (PIGF; Catalog # DPG00) that is attenuated in preeclampsia.² The combination of high sVEGF R1/PIGF ratio with high endoglin is more predictive of preeclampsia development than either value alone.

References

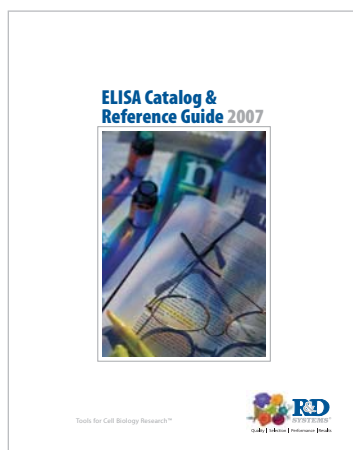
1. Venkatesha, S. *et al.* (2006) Soluble endoglin contributes to the pathogenesis of preeclampsia. *Nat. Med.* **12**:642.
2. Levine, R. J. *et al.* (2006) Soluble endoglin and other circulating antiangiogenic factors in preeclampsia. *N. Engl. J. Med.* **355**:992.



ELISA results for endoglin and sVEGF R1/Flt-1 in sera of individuals with varying degrees of preeclampsia (PE), control pregnancies, and four nonpregnant healthy volunteers. ★P < 0.05 compared to preterm controls, ▲P < 0.05 compared to severe preeclampsia. HELLP (hemolysis, elevated liver enzymes, low platelets). Figure adapted with permission from Nature Medicine.¹

ELISA Reference Guide & Catalog

An updated ELISA Catalog and Reference Guide is available from R&D Systems. It features an alphabetical listing by analyte name, selected references, and an ELISA troubleshooting guide. Request your copy today by sending an email to: info@RnDSystems.com or visiting www.RnDSystems.com/go/Catalog



Quality | Selection | Performance | Results