IL-10 Validations

• Validation includes:
  • % detectability data for Supplier B’s Human CVD3 and Cytokine multiplex panels
  • Reproducibility data for human Cytokine multiplex panel
Suppliers

• A: Bio-Rad
• B: Linco (done)
• C: Upstate
• D: Biosource
• E: RnD Systems
IL-10 - % Detectability

- Using supplier B’s Cytokine multiplex panel as a 21-plex, % detectability of IL-10 in serum and plasma from healthy donors:
  - Citrated plasma (n=16): 87.5%
  - Serum (n=20): 85%
- (Note that for each sample type a different set of donors were used.)
IL-10 - % Detectability

- Using supplier B’s Human CVD3 panel, % detectability of IL-10 in serum and plasma from healthy donors:
  - EDTA plasma (n=10) 80%
  - Citrated plasma (n=10) 80%
  - Serum (n=10) 80%
- (Note that for each sample type a different set of donors were used.)
Supplier B

Human Cytokine multiplex panel

Reproducibility

IL-10 levels for citrated plasma samples from healthy donors assayed with Supplier B’s Cytokine multiplex panel, assayed 8/05 as a 21-plex, agreed well with levels for the same sample set, assayed 2/06 as a 7-plex.

$R^2 = 0.972$
Supplier B Cytokine multiplex panel

Reproducibility

IL-10 levels for citrated plasma samples from healthy donors assayed with Supplier B’s Cytokine multiplex panel, assayed 8/05 as a 21-plex, agreed moderately well with levels for the same sample set, assayed 4/06 as a 3-plex. Reproducibility is likely affected by levels that approach the lower limit of detectability.

$R^2 = 0.883$
IL-10 summary

• The assays are detecting levels of IL-10 in healthy populations, that approach the lower limit of detectability.

• Freeze-thaw effects may exist but have not been investigated formally.

• Very high values should probably be considered spurious in healthy subjects.