

# IL-1b 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-1b - % Detectability

- Using supplier B's Cytokine multiplex panel as a 21-plex, % detectability of IL-1b in serum and plasma from healthy donors:
- Citrated plasma (n=16): 87.5%
- Serum (n=20): 20%
- (Note that for each sample type a different set of donors were used.)

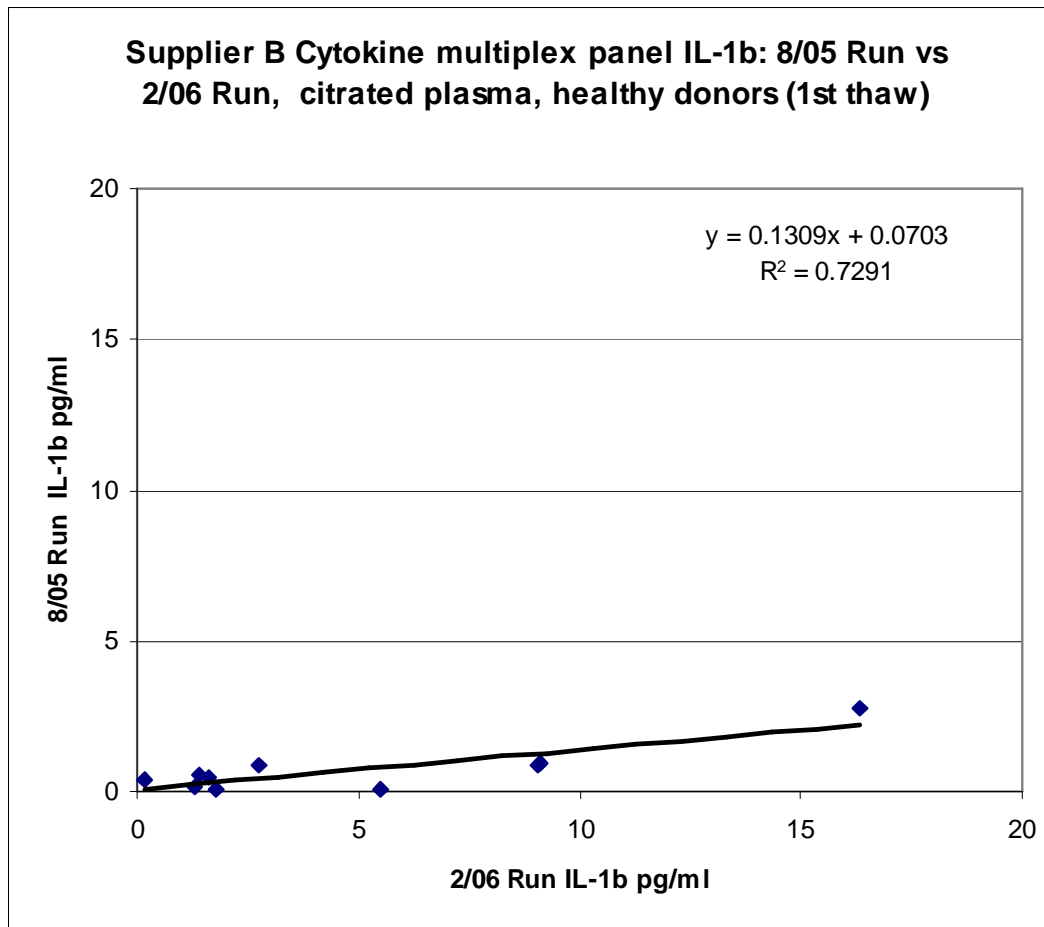
# IL-1b - % Detectability

- Using supplier B's Human CVD3 panel, % detectability of IL-1b in serum and plasma from healthy donors:
  - EDTA plasma (n=10) 90%
  - Citrated plasma (n=10) 70%
  - Serum (n=10) 50%
- (Note that for each sample type a different set of donors were used.)

# Supplier B

Human Cytokine multiplex panel

## Reproducibility



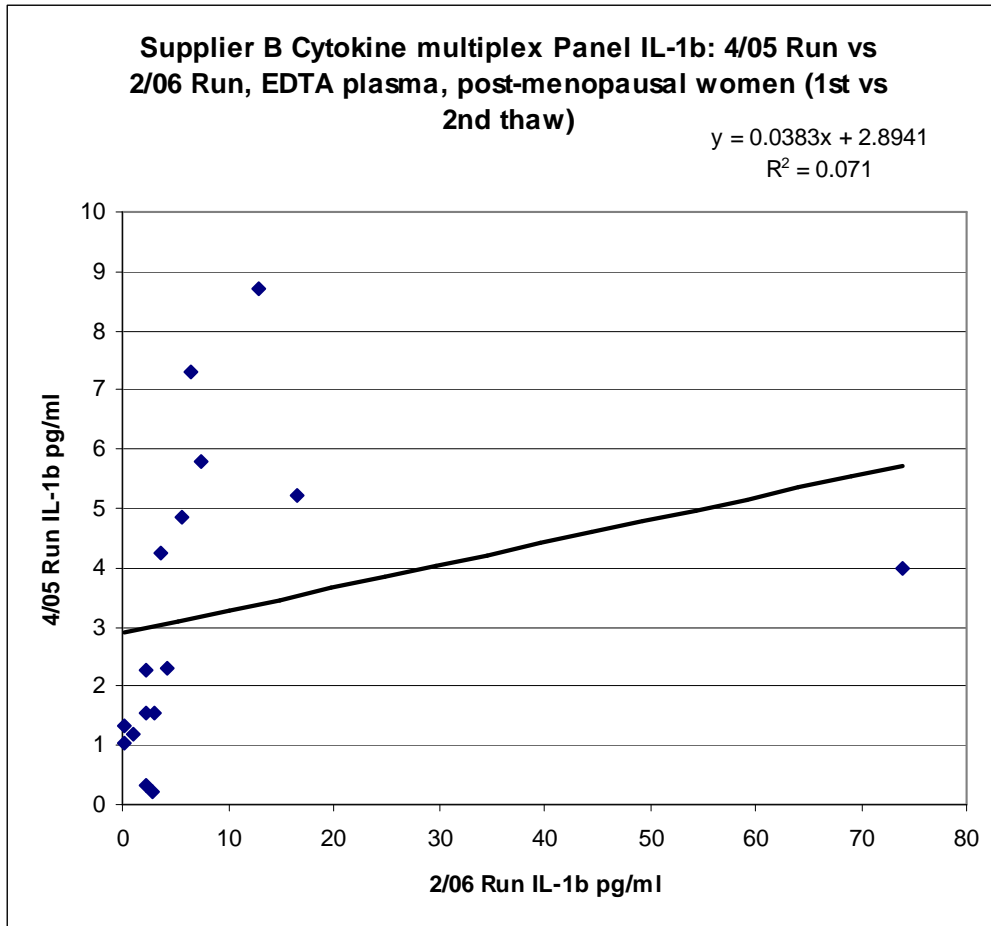
**IL-1b levels for citrated plasma samples from healthy donors assayed with Supplier B's Cytokine multiplex panel, assayed 8/05 as a 21-plex, agreed moderately well with levels for the same sample set, assayed 2/06 as a 6-plex. Reproducibility is likely affected by levels that approach the lower limit of detectability.**

**$R^2 = 0.73$**

# Supplier B

Human Cytokine multiplex panel

## Reproducibility



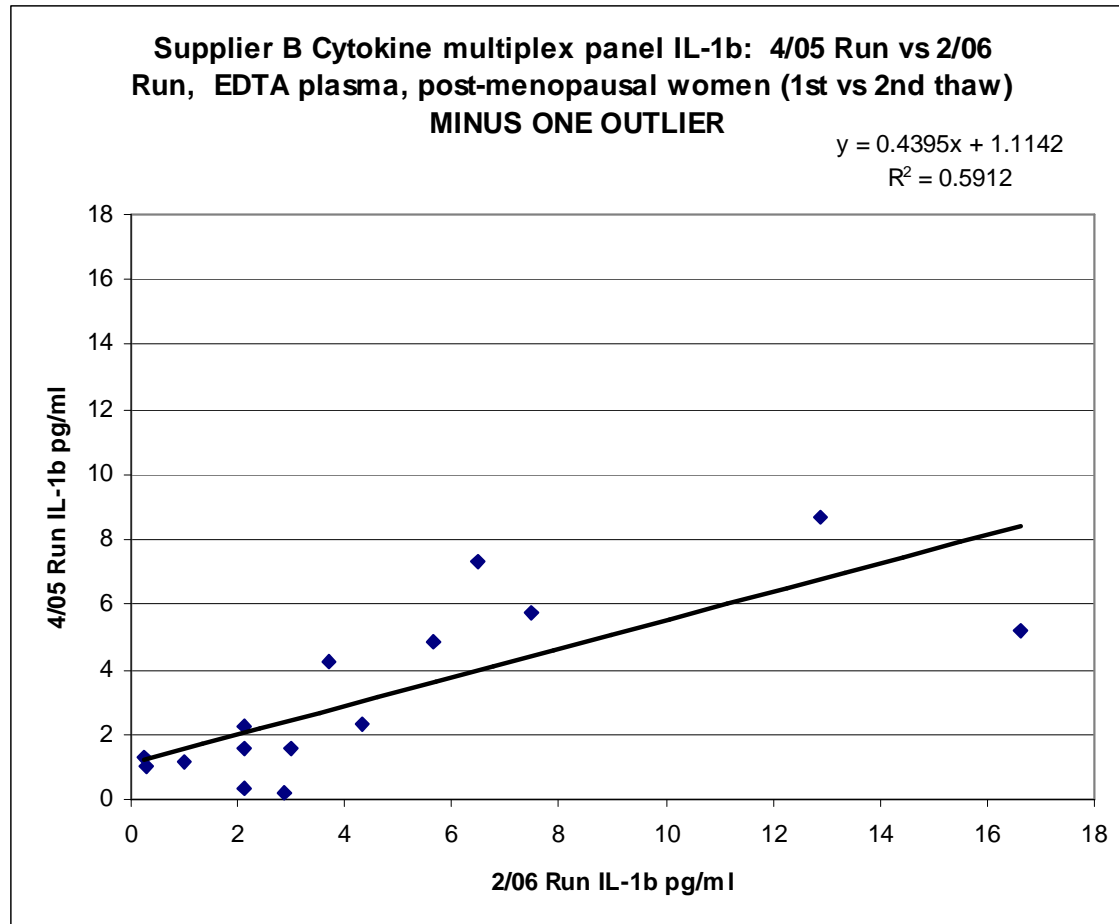
IL-1b levels for EDTA plasma samples from a case/control study of post-menopausal women with and without cancer, using Supplier B's Cytokine multiplex panel, assayed 4/05 as a 21-plex, agreed poorly with levels for the same sample set, assayed 2/06 as a 6-plex, primarily due to one outlier. Note that very high values such as the outlier here, should be considered spurious in healthy subjects and that a freeze thaw effect may exist but has not been investigated to date.

$R^2 = 0.071$

# Supplier B

Human Cytokine multiplex panel

## Reproducibility



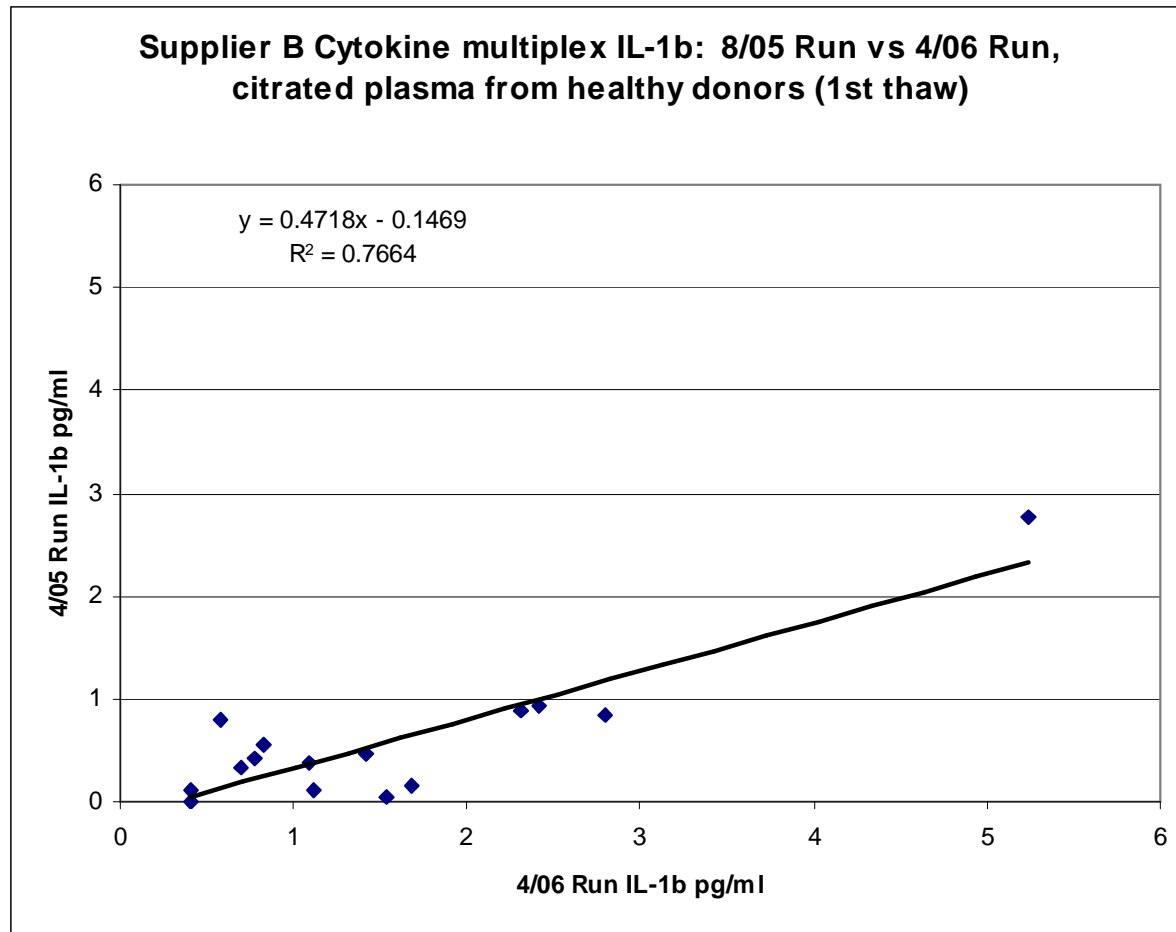
**IL-1b levels for EDTA plasma samples from a case/control study of post-menopausal women with and without cancer, using Supplier B's Cytokine multiplex panel, assayed 4/05 as a 21-plex, agreed moderately well with levels for the same sample set, assayed 2/06 as a 6-plex with a single outlier removed.**

**$R^2 = 0.591$**

# Supplier B

Human Cytokine multiplex panel

## Reproducibility



**IL-1b 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.**

**$R^2 = 0.766$**



## IL-1b summary

- The assays are detecting levels of IL-1b 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.