



# Small Molecule Biomarker Core (SMBC)

University of Pittsburgh

ctsi

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## Estradiol Analysis by Liquid Chromatography/Tandem Mass Spectrometry (UPLC-MS/MS)

A variety of techniques can be used to measure estradiol in plasma and tissue samples, but only mass spectrometry provides the sensitivity, specificity and accuracy required to study changes in special populations such as menopausal women, men and children, whose low estradiol levels can be quantified without possible interference from other endogenous steroids.

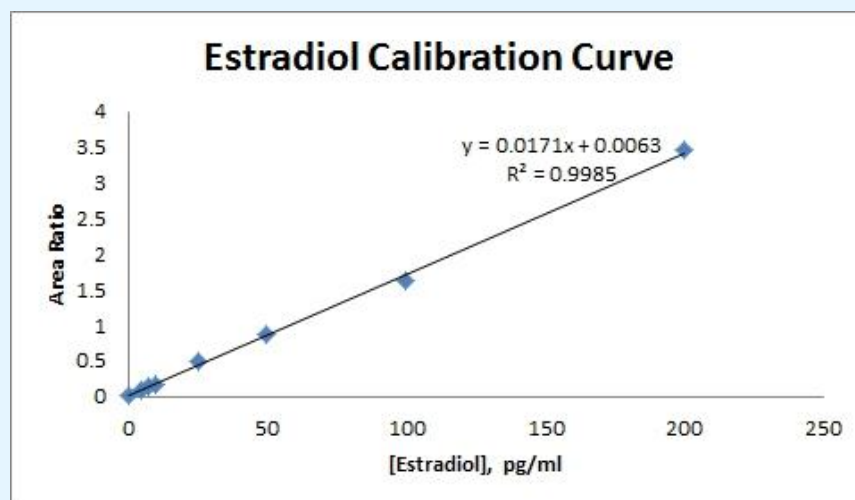
The Small Molecule Biomarker Core (SMBC), founded through a partnership between the University of Pittsburgh CTSI and the School of Pharmacy, provides UPLC-MS/MS analysis for hormones and other biomarkers.

School of Pharmacy



THE ART and SCIENCE OF EXCELLENCE

The estradiol panel is validated for the simultaneous quantitation of estradiol and estrone. The sample volume required is 0.5 ml, the lower limit of quantitation is 1 pg/ml, and the lower limit of detection is 0.5 pg/ml. Other estrogenic compounds, such as 16-hydroxyestrone and estriol may also be measured by the same procedure.



Other panels are available, including two devoted to arachidonic acid metabolites (monooxygenated HETEs, EETs, and prostaglandins), neurosteroids (in development) and drug cocktails to assess hepatic CYP450 activity. A more complete listing of our services may be found on our website. All offer state-of-the-art analysis by UPLC-MS/MS, interpretive support and the convenience that SMBC proximity affords to the University of Pittsburgh and UPMC communities.

Website: [www.biomarkers.pitt.edu](http://www.biomarkers.pitt.edu), e-mail: [biomark@pitt.edu](mailto:biomark@pitt.edu)

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