Bioanalytics, Metabolomics and Pharmacokinetics Shared Resource (BMPK)

Androgens in Human Serum

BMPK has validated a highly sensitive liquid chromatographic tandem mass spectral assay (LC-MS/MS) for the analysis of five androgens including dehydroepiandrosterone (DHEA), androstenedione (ASD), testosterone (T), dihydrotestosterone (DHT) and androsterone (AND).

The assay was used to support a Roswell Park clinical trial entitled "A Pilot Study of the Flaxseed Effects on Hormones and Lignans: Role of Race, Genes, and Gut Microbiome" where 855 serum samples from healthy postmenopausal women were analyzed, in addition to many other studies at Roswell Park and other institutes. The assay has also been used to analyze: (1) heparinized human plasma and human prostate, (2) mouse serum, tumor, and prostate, and (3) cell pellet and media samples.

Assay Specifications

Matrix: Human Serum

Required Volume: 250 µL

Preparation Procedure: Liquid-Liquid Extraction

HPLC Column: C18

Mobile Phase: Methanol with ammonium formate

Flow Rate: 175 µL/min

Detection Type: Tandem Mass Spectral (MS/MS)

ASD and T: 0.00625 to 3.75 ng/mL

Calibration Range: DHT: 0.0125 to 7.50 ng/mL

DHEA and AND: 0.200 to 7.50 ng/mL

BMPK offers a wide range of bioanalytical and PK/PD modeling services to assist investigators in their basic research, preclinical, and clinical study objectives.

For information on services and pricing, contact Joshua Prey, MS, Research Project Administrator, at (716) 845-3313 or Joshua.Prey@RoswellPark.org.

