Brigham Research Assay Core (BRAC) 221 Longwood Avenue Boston, MA 02115 Director: Shalender Bhasin, MD

## **Total Testosterone, Serum**

Method:	Liquid Chromatography-Tandem Mass Spectrometry (LC/MS/MS)
-	Testosterone in human serum are extracted by Solid Phase Extraction (SPE), eluted by High Performance of Liquid Chromatography (HPLC), and determinated by Mass Spectrometry (MS) in Electrospray Ionization (ESI+) source. Deuterated stable isotope dilution is utilized as a internal standard for the calibration of assay.

## **Collection and Performance Characteristics**

Tube type:	Preferred: SST Alternate: Plasma
Minimum Volume:	0.3 mL
Lowest Reportable Value (Limit of Quantification):	1.0 ng/dL
Dynamic Range:	1-200ng/dL
Precision:	Males Intra-assay variation is $<\!2\%$ RSD Inter-assay variation is $<\!7\%$ RSD Females Intra-assay variation is $<\!5\%$ RSD Inter-assay variation is $<\!5\%$ RSD Inter-assay variation is $<\!5\%$ RSD
Reference Range:	Males: 270 – 1070ng/dL Females: 15 –70 ng/dL Children: 2-20ng/mL

Note: Patient's age and sex is required to perform the assay