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

Total Testosterone, Serum

Method:	Liquid Chromatography-Tandem Mass Spectrometry (LC/MS/MS)
Description:	Testosterone in human serum is extracted by Solid Phase Extraction (SPE), then eluted by High Performance of Liquid Chromatography (HPLC). The determination is done by Mass Spectrometry (MS) in Electrospray Ionization (ESI) source. Deuterated stable isotope dilution is utilized for the calibration of assay.

Collection and Performance Characteristics

Tube type:	Preferred: SST Alternate:
Minimum Volume:	0.3 mL
Lowest Reportable Value:	1.0 ng/dL
Dynamic Range:	1-2000ng/dL
Precision:	Males Intra-assay variation is $<\!2\%$ RSD Inter-assay variation is $<\!8\%$ RSD Females Intra-assay variation is $<\!4\%$ 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