

## Oxytocin, Serum or Plasma

<b>Method:</b>	Liquid Chromatography-Tandem Mass Spectrometry (LC/MS/MS)
<b>Description:</b>	<p>Oxytocin is a peptide hormone and neuropeptide. It is normally produced in the hypothalamus and released by the posterior pituitary. It plays a role in social bonding, sexual reproduction, childbirth, and the period after childbirth.</p> <p>Studies have looked at oxytocin's role in various behaviors, including orgasm, social recognition, pair bonding, anxiety, in-group bias, situational lack of honesty, autism, and maternal behaviors.</p> <p>For this assay, Oxytocin in human serum was extracted by Solid Phase Extraction (SPE), separated by High Performance Liquid Chromatography (HPLC), and analyzed by Mass Spectrometry (MS) in Electrospray Ionization (ESI) source at positive ionization mode. Multiple Reaction Monitoring (MRM) of transitions were used for the quantification of Oxytocin. Deuterated stable isotope-labeled Oxytocin was utilized as internal standard for the calibration in the quantification analysis.</p>

### Collection and Performance Characteristics

<b>Tube type:</b>	Preferred: SST Alternate: Plasma
<b>Minimum Volume:</b>	1.0 mL
<b>Special Processing Considerations</b>	<p>Avoid repeated freeze-thaw cycles. Blood samples should be drawn into chilled serum or EDTA tubes containing Aprotin. Please contact BRAC to request the tubes with preservative.</p> <p>Store at -80°C until analysis is performed</p>
<b>Lowest Reportable Value:</b>	5 pg/mL
<b>Dynamic range:</b>	5-500 pg/mL
<b>Precision:</b>	<p>Intra-assay variation is 1.4 – 7.7 %</p> <p>Inter-assay variation is 8.8 – 17.6 %</p>
<b>Reference Range:</b>	Unknown