

# Ghrelin (Active) in Serum or Plasma

<b>Method:</b>	Enzyme Immunoassay (ELISA)
<b>Kit Manufacturer:</b>	EMD Millipore Corporation 6 Research Park Drive St. Charles, Missouri 63304 USA
<b>Description:</b>	<p>Active ghrelin (also known as circulating, or acetylated ghrelin) is a multifunctional hormone produced primarily by the stomach. It consists of 28 amino acids and the n-octanoylation of serine3 position in the molecule is necessary for its bioactivity. Originally found as an endogenous ligand for the growth hormone secretagogue receptor in the pituitary gland, it distinguishes itself from the hypothalamic growth hormone-releasing hormone as another potent stimulator for growth hormone secretion. It is also an important orexigenic hormone in the regulation of energy homeostasis.</p> <p>This assay is a Sandwich ELISA based on: 1) capture of human ghrelin molecules (active form) in the sample by anti-human ghrelin IgG and immobilization of the resulting complex to the wells of a microtiter plate coated by a pre-titered amount of anchor antibodies, 2) and the simultaneous binding of a second biotinylated antibody to ghrelin, 3) wash away of unbound materials, followed by conjugation of horseradish peroxidase to the immobilized biotinylated antibodies, 4) wash away of free enzyme, and 5) quantification of immobilized antibody-enzyme conjugates by monitoring horseradish peroxidase activities in the presence of the substrate 3,3',5,5'-tetra-methylbenzidine. The enzyme activity is measured spectrophotometrically by the increased absorbency at 450 nm, corrected from the absorbency at 590nm, after acidification of formed products. Since the increase in absorbency is directly proportional to the amount of captured.</p>

## Collection and Performance Characteristics

<b>Tube type:</b>	<p><b>**Special Preservative tube Required**</b> Contact BRAC for details</p> <p>Preferred: Serum Alternative: Plasma</p> <p>Process as quickly as possible on ice and quick-freeze at -80 C Avoid multiple Freeze/thaw cycles</p>
<b>Minimum Volume:</b>	<p>0.5 mL</p> <p>Avoid repeated freeze-thaw cycles Store at -20°C until analysis is performed Avoid using hemolyzed or lipemic samples.</p>
<b>Lowest Reportable Value:</b>	31 pg/mL
<b>Dynamic range:</b>	31 – 2000 pg/mL
<b>Precision:</b>	<p>Intra-Assay variation is: 0.8 – 7.5% Inter-Assay Variation is: 3.6 – 12.9%</p>
<b>Reference Range:</b>	