

IGF-1 (Insulin-Like Growth Factor-1)

Analyte: Insulin-like Growth Factor-1

Specimen Type: Serum, Heparin Plasma

Optimum Volume: 0.5 mL

Stability:

2-8 Degrees C	-20 Degrees C	-70 Degrees C
1 day	1 year	1 year

Reporting Units: ng/mL

Method: Chemiluminescence

Biological or Clinical Significance:

Insulin-like growth factor I is a single polypeptide chain with three intramolecule disulfide bonds. It consists of 70 amino acid residues with a molecular mass of 7,649 daltons. It is structurally homologous to IGF-II and insulin. IGF-I circulates primarily in a high molecular weight tertiary complex with IGF-binding protein-3 (IGFBP-3) and acid-labile subunit. In humans, plasma IGF-I levels are barely detectable at birth, rise gradually during childhood, peak during mid-puberty until approximately 40 years of age, then decline gradually. In the diagnosis of growth disorders, measurements of IGF-I are a useful indicator of growth hormone (GH) secretion. Measurement of IGF-I is also useful in assessing change of nutritional status.

Principle of Test Method:

The IGF-1 assay is an automated enzymic chemiluminescent method.