

IGFBP-3

Description	Insulin-like Growth Factor Binding Protein-3. Member of the family of carrier proteins called the IGF-binding proteins.
Indication	Suspected growth hormone (GH) deficiency and IGF-2 mediated hypoglycaemia.
Additional Info	<p>The insulin-like growth factors (IGFs) circulate in serum complexed with IGF-binding proteins. Binding of IGFs to IGFBPs extends their half-life and prevents their interaction with IGF receptors. IGFBP-3 is the most predominant of the IGF-binding proteins and ~75% of the circulating IGFs are bound to IGFBP-3 in a ternary complex along with another protein called the acid-labile subunit (ALS).</p> <p>IGFBP-3 concentration is growth hormone (GH) dependent, therefore measurement of IGFBP-3 is useful in diagnosing GH deficiency. It is also useful in the diagnosis of IGF-2 mediated hypoglycaemia.</p> <p>IGFBP-3 is particularly useful in diagnosing GH hormone deficiency in young children compared to the measurement of IGF-1. IGF-1 levels are age dependent and are low in 'normal' young children, whereas IGFBP-3 reflects both IGF-1 and IGF-II concentration so has less age variation and the levels are higher, allowing better discrimination of low values from the normal range.</p>
Concurrent Tests	IGF-I.
Dietary Requirements	None
Interpretation	Levels are decreased in patients with growth hormone deficiency or resistance.
Collection Conditions	None
Frequency of testing	As required