

IGF-2 (Insulin-like growth factor-II)	
Description	Polypeptide involved in development and growth, particularly in the foetus. Production is growth hormone dependent.
Indication	Suspected tumour induced hypoglycaemia. Other causes of hypoglycaemia should be excluded before requesting this test.
Additional Info	<p>Tumour induced hypoglycaemia is rare and is usually due to excess insulin production from pancreatic islet cell tumours. However, hypoglycaemia maybe associated with non-islet cell tumours and is primarily due to excess IGF-2 production. Solid tumours of mesenchymal or epithelial origin located in the chest or abdomen are the tumours most frequently associated with ectopic IGF-2. Post-translational processing of IGF-2 is disrupted in these tumours, leading to increased secretion of a pro IGF-2 protein (Big IGF-2).</p> <p>Hypoglycaemia is caused by a combination of factors including: growth hormone inhibition, reduced IGF-binding protein production, increased bioavailability of IGFs and IGF binding to insulin receptors.</p>
Concurrent Tests	IGF-1, glucose, IGFBP3
Dietary Requirements	None
Interpretation	An elevated IGF-2 to IGF-1 molar ratio with suppressed concentrations of insulin, C-peptide, ketone and growth hormone is consistent with the diagnosis of a non-islet cell tumour.
Collection Conditions	Collect blood during a hypoglycaemic episode (glucose <2.2 mmol/L).
Frequency of testing	As required.