Glucose-dependent Insulinotropic polypeptide (GIP) is a major physiologic factor in the augmentation of the Insulin response to oral glucose. GIP is a peptide hormone that is released postprandially from the small intestine and acts in concert with glucagon-like peptide (GLP)-1 to potentiate glucose-induced Insulin secretion from the pancreatic ß-cell. GIP has been shown to increase adenyl cyclase activity, elevate intracellular calcium levels and stimulate a mitogen-activated protein kinase pathway in the pancreatic ß cell. Additionally, nutrient protein provides a potent stimulus for GIP expression, an effect that occurs at the posttranslational level and may be mediated in part through the acid-stimulatory properties of protein. GIP release is demonstrated predominantly after ingestion of carbohydrate and fat and the effects of acid on GIP are consistent with a role for GIP as an enterogastrone.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: GIP (human) mapping to 17q21.32.

RESEARCH USE
For research use only, not for use in diagnostic procedures.