

PYY, 3-36 (Peptide YY, 3-36)

Analyte: Peptide YY (3-36)

Specimen Type: Plasma from BD P700 or P800, EDTA Plasma with preservatives; contact PBI for collection instructions

Optimum Volume: 0.6 mL *

Stability:

2-8 Degrees C	-20 Degrees C	-70 Degrees C
Unstable*	N.A.*	N.A.*

Reporting Units: mg/dL

Method: Radioimmunoassay

Biological or Clinical Significance:

Peptide YY (PYY) is a gut hormone structurally and functionally related to a family of peptides including neuropeptide Y and pancreatic polypeptide (PP). The peptides of this family mediate their effects through several G protein-coupled receptors. PYY is primarily released from endocrine cells of the distal digestive tract and plays an important role in regulating food intake and energy balance. PYY, which can be detected in blood, is a 36 amino acid peptide which exists in the 1-36 form and the truncated 3-36 form. The 3-36 form is generated by DPP-IV cleavage of two N-terminal amino acids. Both forms are bioactive and differ in their affinity for various receptor types. PYY increases after eating, peaking at about 60 min. following food intake. It also has been found to be linked to diabetes type 2 and insulin resistance.

Principle of Test Method:

The PYY assay is a competitive radioimmunoassay (RIA).

* Note: Due to instability of the specimen upon thawing, it is recommended that two aliquots be submitted in the event repeat analysis is required. Please contact PBI for stability information.

References:

1. Boey D, Heilbronn L, Sainsbury A, Laybutt R, Kriketos A, Herzog H, and Campbell LV. (2006) Low serum PYY is linked to insulin resistance in first-degree relatives of subjects with type 2 diabetes. *Neuropeptides* 40: 317-324.
2. Glümer C, Jørgensen T, Borch-Johnsen K. Prevalences of diabetes and impaired glucose regulation in a Danish population. The Inter99 study. *Diabetes Care* 2003; 26:2333-2340.
3. Torekob SS, Larsen LH, Glümer C, Borch-Johnsen K, Jørgensen T, Holst JJ, Madsen LD, Hansen T, Pedersen O. Evidence of an association between the arg72 allele of the peptide YY and increased risk of type 2 diabetes. *Diabetes* 2005; 54:2261-2265.