



Rat peptide YY (PYY) ELISA kit (15.6-1000 pg/mL)

Cat. No.:	0126WXX-1674
Assay Type:	Quantitative competitive ELISA
Target Species:	Rat
Assay Target:	PYY
Size:	48T; 96T

This product is for research use only and is not intended for diagnostic use.

Product Overview

Description

Rat peptide YY (PYY) ELISA kit (15.6-1000 pg/mL) is an ELISA-based *in vitro* research tool designed specifically for the quantitative detection of PYY in rat samples with a range of 15.6-1000 pg/mL and a minimum detectable dose (sensitivity) of 8.14 pg/mL. The kit is highly sensitive and easy to use.

Assay Principle

This ELISA is based on the competitive binding enzyme immunoassay technique. The provided microplate is pre-coated with an antibody specific to PYY. During the reaction, PYY in the sample or standard competes with a fixed amount of biotin-labeled PYY for binding sites on the immobilized monoclonal antibody. After washing the plate, avidin-HRP is added and incubated. TMB substrate is then introduced to develop color. The reaction is stopped with sulphuric acid, and the O.D. is measured at 450 nm \pm 2 nm, where the intensity is inversely proportional to the PYY concentration.

**Background**

PYY (Peptide YY), a critical gut peptide and member of the NPY family located at chromosomal position 17q21.1, serves as a fundamental regulator in the physiological landscape of obesity and digestive homeostasis. Secreted into the extracellular region as two distinct isoforms through alternative splicing, this neuropeptide hormone exerts its biological influence primarily through G-protein coupled receptor signaling pathways to modulate eating behavior and appetite regulation. Its multifaceted role in the gastrointestinal tract includes the inhibition of exocrine pancreatic secretion, the mediation of vasoconstrictory actions, and the suppression of jejunal and colonic motility, thereby slowing digestion to enhance satiety. Beyond its classical endocrine functions in feeding behavior, PYY is also implicated in broader cellular processes such as cell proliferation and cytoskeleton organization.

Synonyms

Peptide YY-like

Formula Weight

11,121 Da

Applications

Rat peptide YY (PYY) ELISA kit (15.6-1000 pg/mL) is used to quantify PYY in rat samples, providing data to support research in a wide range of areas, including neuroscience, hepatology, obesity, and others.

Research Area

Neuroscience; Hepatology; Obesity

Specification

Sample Type

Rat samples

Detection Range

15.6-1000 pg/mL

Sensitivity

8.14 pg/mL

Precision (Intra-assay)

CV≤5.2%

Precision (Inter-assay)

CV≤10.4%

Cross-reactivity

No significant cross-reactivity or interference was observed.

Recovery

0.88

Storage

Store at -20°C.