

Rat peptide YY (PYY) ELISA kit (0.312-20 ng/mL)

Cat. No.:	0126WXX-1677
Assay Type:	Quantitative sandwich ELISA
Target Species:	Rat
Assay Target:	PYY
Size:	48T; 96T

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

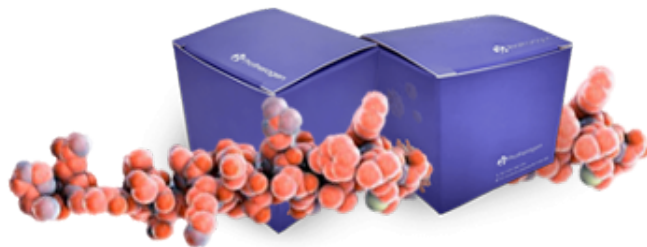
Product Overview

Description

Rat peptide YY (PYY) ELISA kit (0.312-20 ng/mL) is an ELISA-based *in vitro* research tool designed specifically for the quantitative detection of PYY in rat samples with a range of 0.312-20 ng/mL and a minimum detectable dose (sensitivity) of <0.06 ng/mL. The kit is highly sensitive and easy to use.

Assay Principle

This kit uses a typical double-antibody sandwich ELISA technique. The microplate is pre-coated with a Rat PYY monoclonal antibody, while the detection antibody is a biotin-labeled polyclonal antibody. Samples and the biotinylated detection antibody are added and then washed with PBS or TBS. Avidin-peroxidase conjugates are then introduced. After a final wash cycle, TMB substrate is added. The blue product of the peroxidase reaction turns yellow upon acidification. The color intensity is positively correlated with the level of PYY in the sample.



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

10,360 Da

Applications

Rat peptide YY (PYY) ELISA kit (0.312-20 ng/mL) is used to quantify PYY in serum, plasma, and cell culture supernatant of rats, 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 serum; Plasma; Cell culture supernatant

Detection Range

0.312-20 ng/mL

Sensitivity

<0.06 ng/mL

Precision (Intra-assay)

CV≤8%

Precision (Inter-assay)

CV≤12%

Cross-reactivity

No significant cross-reactivity or interference was observed.

Recovery

70-110%

Storage

Store at 2-8°C.