



Rabbit Anti-Peptide YY antibody

SL2265R

Product Name:	Peptide YY
Chinese Name:	酪酪肽抗体
Alias:	RATGHYY; GHYY; MGC19143; Peptide tyrosine tyrosine; peptide YY; Peptide YY like; Peptide YY precursor; PYY 1; PYY; PYY II; PYY1; PYYI; Yy; PYY_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	4.4kDa
Cellular localization:	Secretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide human Peptide YY:29-64/97
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Peptide tyrosine tyrosine (PYY) was originally isolated from porcine gut, which exhibits striking sequence homology with members of the pancreatic polypeptide family, including neuropeptide tyrosine (NPY). The peptide is localized to enteroglucagon containing (L/EG) and pancreatic (A) cells in many mammalian and non-mammalian species. PYY gene expression is upregulated by various growth factors, including growth hormone and insulin-like growth factor and the physiological

effects of PYY are mediated by G-protein (G alpha i2) coupled Y-type receptors ('Y2 receptors of a PYY preferring subtype'). Various actions have been reported for PYY, including the inhibition of upper intestinal and exocrine pancreatic secretion, small intestinal water flux and as the mediator for the fat-induced ileal brake. Recently, the infusion of normal postprandial concentrations of PYY[3-36] into human volunteers has been shown to significantly decrease appetite and reduce food intake, possibly via Y2R in the arcuate nucleus. Immunohistochemical studies on mice have shown that PYY is the earliest detectable peptide in both pancreatic islets and colonic endocrine cells which suggest that PYY may be a useful marker for endocrine progenitor cells.

PYY1-36(human):

Tyr-Pro-Ile-Lys-Pro-Glu-Ala-Pro-Gly-Glu-Asp-Ala-Ser-Pro-Glu-Glu-Leu-Asn-Arg-Tyr-Tyr-Ala-Ser-Leu-Arg-His-Tyr-Leu-Asn-Leu-Val-Thr-Arg-Gln-Arg-Tyr-NH₂
CAS Number: 118997-30-1; Empirical Formula (Hill Notation): C₁₉H₂₉N₅O₅; Molecular Weight: 4309.75

Function:

This gut peptide inhibits exocrine pancreatic secretion, has a vasoconstrictory action and inhibits jejunal and colonic mobility.

Subcellular Location:

Secreted.

Similarity:

Belongs to the NPY family.

SWISS:

P10082

Gene ID:

5697

Database links:

[Entrez Gene: 5697](#)Human

[Entrez Gene: 217212](#)Mouse

[Entrez Gene: 445018](#)Pig

[Entrez Gene: 287730](#)Rat

[Omim: 600781](#)Human

[SwissProt: P68004](#)Dog

[SwissProt: P10082](#)Human

[SwissProt: Q9EPS2](#)Mouse

[SwissProt: P68005](#)Pig

[SwissProt: Q9TR93](#)Rabbit

[SwissProt: P10631](#)Rat

[Unigene: 169249](#)Human

[Unigene: 46248](#)Mouse

[Unigene: 13173](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

酪酪肽简介

酪酪肽PYY又称肠道衍生激素酪酪肽, 属胰多肽家族成员, 因它可使机体产生饱感、减少摄食和体重而为人们所知。随着进一步的深入研究, 又发现其具有多种生物功能。

1、

PYY的蛋白结构:PYY与胰多肽(PP)和神经肽Y(NPY)具有较高的序列同源性, 故认为属胰多肽家族

。PYY是一种具有酰胺化羧基末端的肽类物质, 为直链多肽, 其分子结构为36个氨基酸缩合而成该肽的氨基和羧基末端的氨基酸残基均为酪氨酸(Tyrosine,Tyr)。在循环系统中, PYY以PYY1-36 和PYY3-36两种形式存在。

2、**PYY的分泌及影响因素:**

PYY主要由结肠和直肠的L细胞以内分泌和旁分泌两种方式分泌;

a. 初期PYY是由结肠的内分泌细胞所产生, 该激素与胃肠道的形成和发育过程具有一定的关系。

b. PYY也可以由胃和胰腺的内分泌细胞所分泌, 同时在中枢神经系统(下丘脑、脑干、髓质、脑桥和脊髓)和末梢神经系统的神经元中存在。

c. 在胰腺内, PYY主要和胰高血糖素在胰岛的 α 细胞内共同表达。PYY在初期胰岛细胞前体中的表达, 说明它在胰腺的分化增殖和发育过程中起了重要的作用, 从两栖类动物的皮肤中也分离出一种PYY, 称为S-PYY。

3、**PYY的作用:**

a. **抑制胰岛素的分泌:**在体内和体外实验中PYY可以抑制胰岛素的分泌。PYY是间接通过减少胰高血糖素的作用来影响胰岛素的分泌。由于胰岛素和PYY都是由胰岛的 β 细胞分泌, 因此, PYY可能是经过旁分泌方式来调节胰岛素的分泌, 但胰高血糖素和PYY是否一起被分泌还需要进一步的研究。

b.PYY还可以通过作用于中枢神经系统来抑制胰岛素的分泌。PYY可能与脑干内的Y1和Y2受体结合来调节迷走神经和影响摄食功能,这其中就包括调节胰岛素的分泌。

c.抑制胃酸分泌:PYY
可以抑制由五肽胃泌素、胆碱能激动剂、刺激迷走神经和组织胺所引起的胃酸分泌以及减少胃蛋白酶的含量,同时还可以增加血液中PYY的浓度。

d.PYY对摄食行为的调节:
PYY的浓度在摄食前下降和摄食后增加,表明PYY是一个调节摄食的饱感信号。