

Xenin-25

A gastrointestinal peptide that regulates feeding independent of the melanocortin signaling pathway

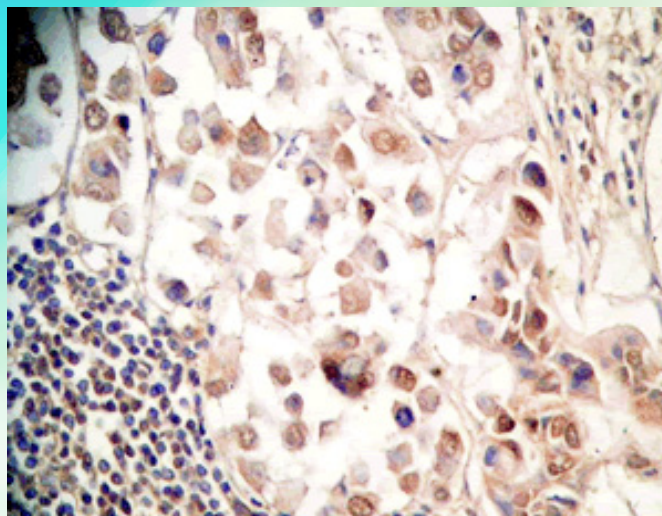
Xenin, a gastrointestinal peptide, regulates feeding independent of the melanocortin signaling pathway.

Objective: Xenin, a 25-amino acid peptide, was initially isolated from human gastric mucosa. Plasma levels of xenin rise after a meal in humans and administration of xenin inhibits feeding in rats and chicks. However, little is known about the mechanism by which xenin regulates food intake. Signaling pathways including leptin and melanocortins play a pivotal role in the regulation of energy balance. Therefore, we addressed the hypothesis that xenin functions as a satiety factor by acting through the melanocortin system or by interacting with leptin.

Research Design and Methods: The effect of intracerebroventricular (i.c.v.) and intraperitoneal (i.p.) administration of xenin on food intake was examined in wild-type, agouti, and ob/ob mice. The effect of i.c.v. injection of SHU9119, a melanocortin receptor antagonist, on xenin-induced anorexia was also examined in wild-type mice. To determine if the hypothalamus mediates the anorectic effect of xenin, we examined the effect of i.p. xenin on hypothalamic Fos expression.

Results: Both i.c.v. and i.p. administration of xenin inhibited fasting-induced hyperphagia in wild-type mice in a dose-dependent manner. The i.p. injection of xenin also reduced nocturnal intake in ad libitum fed wild-type mice. The i.p. injection of xenin increased Fos-immunoreactivity in hypothalamic nuclei, including the paraventricular nucleus (PVH) and the arcuate nucleus (ARC). Xenin reduced food intake in agouti and ob/ob mice. SHU9119 did not block xenin-induced anorexia.

Conclusions: Our data suggest that xenin reduces food intake partly by acting through the hypothalamus, but via signaling pathways that are independent of those used by leptin or melanocortins.



Human stomach tissue was stained by rabbit anti-Xenin 25 (Human) antibody (Cat. No.: H-046-74)

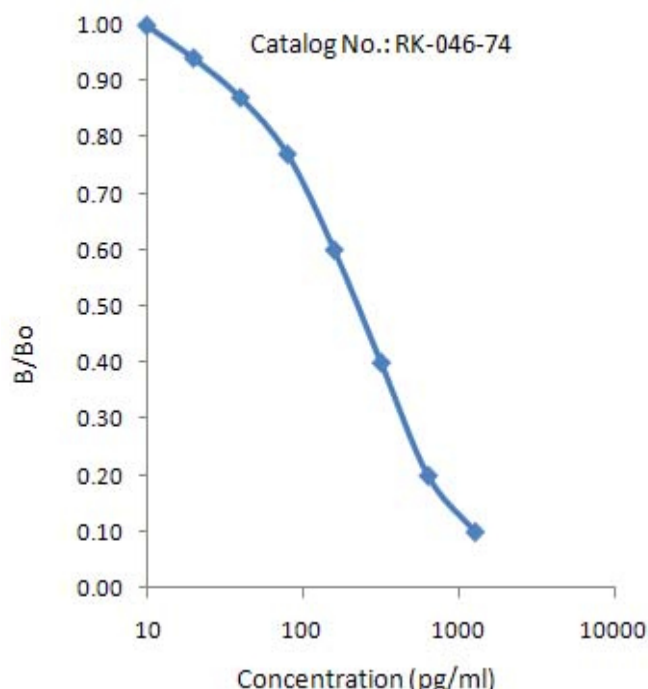
Leckstrom et al. Diabetes. 2009 Jan;58(1):87-94



PHOENIX PHARMACEUTICALS, INC.
330 BEACH ROAD, BURLINGAME CA, 94010, USA
PHONE: (650) 558-8898 EMAIL: info@phoenixpeptide.com
WWW.PHOENIXPEPTIDE.COM

PHOENIX EUROPE GMBH
VIKTORIASTRASSE 3-5, D-76133 KARLSRUHE, GERMANY
PHONE: +49-721-1611950 EMAIL: germany@phoenixpeptide.com
WWW.PHOENIXPEPTIDE.COM

Human Xenin 25 RIA Kit



Specificity of Xenin-25 (Human) RIA Kit

Peptide	Cross reactivity (%)
Xenin-25 (Human)	100
Neurotensin (H,R,M)	0
Neuromedin N (H, P)	0
Kinetensin / Neurotensin Related Peptide (Human)	0
Glucagon (Human)	0
Oxyntomodulin (H, R, M)	0
PYY (3-36) (Human)	0
Ghrelin (Human)	0
Motilin (Human)	0
GLP-1 (7-36) Amide (Human)	0
Gastrin-1 (Human)	0
CCK (26-33) (Non-Sulfated) (H, R, M)	0



Phoenix Pharmaceuticals, Inc.

Catalog	Product Name	Standard Size
FC5-G-046-74	Xenin 25 (Human) - Cy5 Labeled Purified IgG	100ul
FG-G-046-74A	Xenin 25 (Human) - FAM Labeled Purified IgG	100ul
046-74	Xenin 25 (Human)	200 µg
RK-046-74	Xenin-25 (Human) RIA kit	1 kit
FG-G-046-74B	Xenin 25 (Human) - FITC Labeled Purified IgG	100ul
H-046-74	Xenin 25 (Human) Antibody for Immunohistochemistry	100 ul
FR-G-046-74	Xenin 25 (Human) - Rhodamine Labeled Purified IgG	100ul
G-046-74	Xenin 25 (Human) Purified IgG	100ug
FC3-G-046-74	Xenin 25 (Human) - Cy3 Labeled Purified IgG	100ul
B-G-046-74	Xenin 25 (Human) - Biotin labeled purified IgG	100ul
046-70	Xenopsin	500 µg