# QRFP (M-13): sc-162058



The Power to Question

#### **BACKGROUND**

QRFP (pyroglutamylated RFamide peptide), also known as P518 or 26RFa, is a 136 amino acid secreted protein that is widely expressed in the brain with highest expression levels in the cerebellum, medulla, pituitary, retina, vestibular nucleus and white matter. Also expressed in the bladder, colon, coronary artery, parathyroid gland, prostate, testis and thyroid, QRFP is a member of the RFamide neuropeptide family. QRFP may be involved in aldosterone secretion by the adrenal gland and is also implicated in stimulating metabolic rate, locomotor activity and increasing blood pressure. Considered a ligand for the G-protein coupled receptor GPR103, QRFP may have orexigenic activity, thereby acting as an appetite stimulant. The gene encoding QFRP is located on human chromosome 9, which consists of about 145 million bases, comprises roughly 4% of the human genome and encodes nearly 900 genes.

# **REFERENCES**

- Fukusumi, S., et al. 2003. A new peptidic ligand and its receptor regulating adrenal function in rats. J. Biol. Chem. 278: 46387-46395.
- Kutzleb, C., et al. 2005. Discovery of novel regulatory peptides by reverse pharmacology: spotlight on chemerin and the RF-amide peptides metastin and QRFP. Curr. Protein Pept. Sci. 6: 265-278.
- Kampe, J., et al. 2006. Effect of central administration of QRFP(26) peptide on energy balance and characterization of a second QRFP receptor in rat. Brain Res. 1119: 133-149.
- Fukusumi, S., et al. 2006. Recent advances in mammalian RFamide peptides: the discovery and functional analyses of PrRP, RFRPs and QRFP. Peptides 27: 1073-1086.
- 5. Yamamoto, T., et al. 2008. Analgesic effects of intrathecally administered 26RFa, an intrinsic agonist for GPR103, on formalin test and carrageenan test in rats. Neuroscience 157: 214-222.
- Primeaux, S.D., et al. 2008. Central administration of the RFamide peptides, QRFP-26 and QRFP-43, increases high fat food intake in rats. Peptides 29: 1994-2000.
- Beck, B. and Richy, S. 2009. Suppression of QRFP 43 in the hypothalamic ventromedial nucleus of Long-Evans rats fed a high-fat diet. Biochem. Biophys. Res. Commun. 383: 78-82.
- Liu, Y., et al. 2009. Molecular cloning and functional characterization of the first non-mammalian 26RFa/QRFP orthologue in Goldfish, *Carassius auratus*. Mol. Cell. Endocrinol. 303: 82-90.
- 9. Ukena, K., et al. 2010. Identification, localization, and function of a novel avian hypothalamic neuropeptide, 26RFa, and its cognate receptor, G protein-coupled receptor-103. Endocrinology 151: 2255-2264.

## **CHROMOSOMAL LOCATION**

Genetic locus: QRFP (human) mapping to 9q34.12; Qrfp (mouse) mapping to 2 B.

# **STORAGE**

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### **SOURCE**

QRFP (M-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of QRFP of mouse origin.

## **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-162058 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

QRFP (M-13) is recommended for detection of QRFP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for QRFP siRNA (h): sc-92606, QRFP siRNA (m): sc-152613, QRFP shRNA Plasmid (h): sc-92606-SH, QRFP shRNA Plasmid (m): sc-152613-SH, QRFP shRNA (h) Lentiviral Particles: sc-92606-V and QRFP shRNA (m) Lentiviral Particles: sc-152613-V.

Molecular Weight of QRFP: 15 kDa.

# **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat lgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat lgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat lgG-FITC: sc-2024 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

#### **PROTOCOLS**

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

**Santa Cruz Biotechnology, Inc.** 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**