

# QRFP (C-14): sc-162055

## 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 QRFP 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

1. Fukusumi, S., et al. 2003. A new peptidic ligand and its receptor regulating adrenal function in rats. *J. Biol. Chem.* 278: 46387-46395.
2. Kutzleb, C., et al. 2005. Discovery of novel regulatory peptides by reverse pharmacology: spotlight on chemerin and the RF-amide peptides metastatin and QRFP. *Curr. Protein Pept. Sci.* 6: 265-278.
3. 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.
4. 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.
6. 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.
7. Beck, B. and Richey, 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.

## CHROMOSOMAL LOCATION

Genetic locus: QRFP (human) mapping to 9q34.12.

## SOURCE

QRFP (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of QRFP of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-162055 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

QRFP (C-14) is recommended for detection of QRFP of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 shRNA Plasmid (h): sc-92606-SH and QRFP shRNA (h) Lentiviral Particles: sc-92606-V.

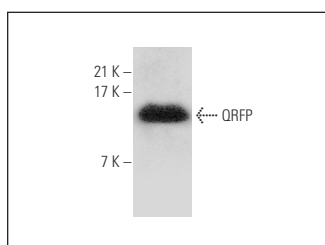
Molecular Weight of QRFP: 15 kDa.

Positive Controls: human skeletal muscle extract: sc-363776.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



QRFP (C-14): sc-162055. Western blot analysis of QRFP expression in human skeletal muscle tissue extract.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.