

# RTP2 (A-12): sc-99619

## BACKGROUND

Members of the RTP (receptor transporter proteins) family have recently been discovered to influence bitter taste receptor expression in addition to inducing the expression of mammalian odorant receptors. RTP2 [receptor (chemosensory) transporter protein 2], whose alternative names include MGC78665 or receptor-transporting protein 2, is a 225 amino acid single-pass type III membrane protein whose cell surface expression is dependent on olfactory receptor interaction. RTP2 belongs to the TMEM7 family, playing a role in both the function of odorant receptors and their translocation to the plasma membrane. RTP2 is highly expressed olfactory and vomeronasal organs with low expression in brain. While RTP2 lacks a signal peptide it contains a C-terminal transmembrane domain. The gene encoding RTP2 maps to human chromosome 3q27.3.

## REFERENCES

1. Saito, H., et al. 2004. RTP family members induce functional expression of mammalian odorant receptors. *Cell* 119: 679-691.
2. Gerhard, D.S., et al. 2004. The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). *Genome Res.* 14: 2121-2127.
3. Clark, A.J., et al. 2005. Inherited ACTH insensitivity illuminates the mechanisms of ACTH action. *Trends Endocrinol. Metab.* 16: 451-457.
4. Behrens, M., et al. 2006. Members of RTP and REEP gene families influence functional bitter taste receptor expression. *J. Biol. Chem.* 281: 20650-20659.
5. Online Mendelian Inheritance in Man, OMIM™. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 609138. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: RTP2 (human) mapping to 3q27.3.

## SOURCE

RTP2 (A-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RTP2 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-99619 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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.

## APPLICATIONS

RTP2 (A-12) is recommended for detection of RTP2 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); non cross-reactive with RTP1, 3 and 4.

RTP2 (A-12) is also recommended for detection of RTP2 in additional species, including bovine.

Suitable for use as control antibody for RTP2 siRNA (h): sc-78100, RTP2 shRNA Plasmid (h): sc-78100-SH and RTP2 shRNA (h) Lentiviral Particles: sc-78100-V.

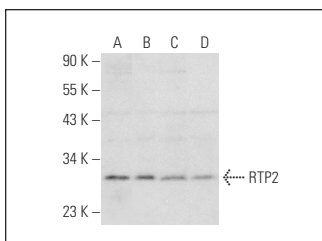
Molecular Weight of RTP2: 26 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

## 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



RTP2 (A-12): sc-99619. Western blot analysis of RTP2 expression in HEK293 (A), HeLa (B), Jurkat (C) and K-562 (D) whole cell lysates.

## PROTOCOLS

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