

## TIP39 (Z-24): sc-134089

### BACKGROUND

Tuberoinfundibular peptide of 39 residues (TIP39) and the parathyroid hormone-2 (PTH2) receptor form part of an extended family of related signaling molecules that includes the PTH1 receptor, which responds to PTH and PTH-related protein. The polypeptide TIP39 is a potent activator of the parathyroid hormone (PTH)-2 receptor (PTH2, P2R) and an antagonist of the PTH-1 receptor (PTH1, P1R). TIP39 stimulates cAMP accumulation in cells expressing PTH2, but it is inactive at the PTH1 receptor site. The TIP39 gene encoding the protein maps at chromosome 19q13.33. TIP39 may have an important role in spermatogenesis. Mouse TIP39 differs from human TIP39 by four amino acid residues. TIP39 expression can be seen in testis, seminiferous tubuli, liver, kidney and in several brain regions such as nucleus subparafascicularis thalami, nucleus centralis pontis and nucleus ruber.

### REFERENCES

1. Hoare, S.R., Clark, J.A. and Usdin, T.B. 2000. Molecular determinants of tuberoinfundibular peptide of 39 residues (TIP39) selectivity for the parathyroid hormone-2 (PTH2) receptor. N-terminal truncation of TIP39 reverses PTH2 receptor/PTH1 receptor binding selectivity. *J. Biol. Chem.* 275: 27274-27283.
2. John, M.R., Arai, M., Rubin, D.A., Jonsson, K.B., Juppner, H., 2002. Identification and characterization of the murine and human gene encoding the tuberoinfundibular peptide of 39 residues. *Endocrinology* 143: 1047-1057.
3. Eichinger, A., Fiaschi-Taesch, N., Massfelder, T., Fritsch, S., Barthelmebs, M. and Helwig, J.J. 2002. Transcript expression of the tuberoinfundibular peptide (TIP39)/PTH2 receptor system and non-PTH1 receptor-mediated tonic effects of TIP39 and other PTH2 receptor ligands in renal vessels. *Endocrinology* 143: 3036-3043.
4. Della Penna, K., Kinose, F., Sun, H., Koblan, K.S. and Wang, H. 2003. Tuberoinfundibular peptide of 39 residues (TIP39): molecular structure and activity for parathyroid hormone 2 receptor. *Neuropharmacology* 44: 141-153.
5. SWISS-PROT/TrEMBL (Q96DJ4). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

### CHROMOSOMAL LOCATION

Genetic locus: PTH2 (human) mapping to 19q13.33; Pth2 (mouse) mapping to 7 B4.

### SOURCE

TIP39 (Z-24) is an affinity purified rabbit polyclonal antibody raised against synthetic TIP39 peptide of human origin.

### STORAGE

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

### PROTOCOLS

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

### PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

### APPLICATIONS

TIP39 (Z-24) is recommended for detection of TIP39 of mouse, rat and 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TIP39 siRNA (m): sc-154280, TIP39 shRNA Plasmid (m): sc-154280-SH and TIP39 shRNA (m) Lentiviral Particles: sc-154280-V.

Molecular Weight of TIP39 precursor: 11 kDa.

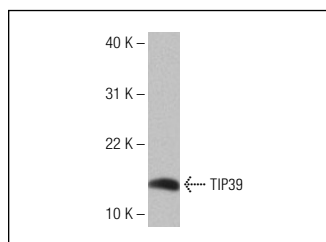
Molecular Weight of mature TIP39: 4 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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).

### DATA



TIP39 (Z-24): sc-134089. Western blot analysis of TIP39 expression in Hep G2 whole cell lysate.

### RESEARCH USE

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