

# T54 (Q-19): sc-55320

## BACKGROUND

T54, also known as GPKOW (G patch domain and KOW motifs), GPATC5 or GPATCH5 (G patch domain-containing protein 5), is a potential RNA-binding protein consisting of one central G patch domain and two C-terminal KOW domains. T54 is a 476 amino acid protein belonging to the MOS2 family. It is a mammalian homolog of the *Arabidopsis thaliana* MOS2 (modifier of SNC1, 2) nuclear protein that is required for innate immunity. Similar to *A. thaliana* MOS2, T54 localizes to the nucleus and contains G patch and KOW domains, suggesting that T54 may play a similar role in mammalian innate immunity.

## REFERENCES

1. Schindelbauer, D., et al. 1996. Long-range map of a 3.5-Mb region in Xp11.23-22 with a sequence-ready map from a 1.1-Mb gene-rich interval. *Genome Res.* 6: 1056-1069.
2. Strausberg, R.L., et al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. *Proc. Natl. Acad. Sci. USA* 99: 16899-16903.
3. 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.
4. Rual, J.F., et al. 2005. Towards a proteome-scale map of the human protein-protein interaction network. *Nature* 437: 1173-1178.
5. Zhang, Y., et al. 2005. MOS2, a protein containing G-patch and KOW motifs, is essential for innate immunity in *Arabidopsis thaliana*. *Curr. Biol.* 15: 1936-1942.
6. Olsen, J.V., et al. 2006. Global, *in vivo*, and site-specific phosphorylation dynamics in signaling networks. *Cell* 127: 635-648.

## CHROMOSOMAL LOCATION

Genetic locus: GPKOW (human) mapping to Xp11.23; Gpkow (mouse) mapping to X A1.1.

## SOURCE

T54 (Q-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of T54 of mouse 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-55320 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.

## PROTOCOLS

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

## APPLICATIONS

T54 (Q-19) is recommended for detection of T54 of mouse, rat and, to a lesser extent, 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), immunohistochemistry (including paraffin-embedded sections) (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 T54 siRNA (h): sc-63096, T54 siRNA (m): sc-63097, T54 shRNA Plasmid (h): sc-63096-SH, T54 shRNA Plasmid (m): sc-63097-SH, T54 shRNA (h) Lentiviral Particles: sc-63096-V and T54 shRNA (m) Lentiviral Particles: sc-63097-V.

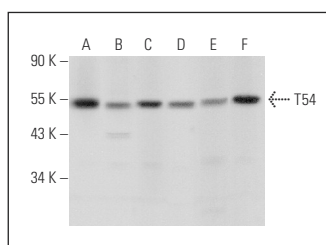
Molecular Weight of T54: 52 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210 or c4 whole cell lysate: sc-364186 or rat brain extract: sc-2392.

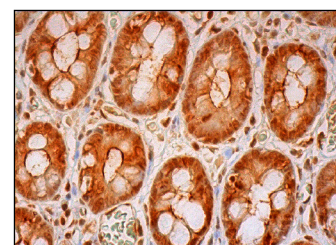
## RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



T54 (Q-19): sc-55320. Western blot analysis of T54 expression in rat brain tissue extract (A) and NIH/3T3 (B), A2058 (C), C6 (D), c4 (E) and PC-12 (F) whole cell lysates.



T54 (Q-19): sc-55320. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing nuclear and cytoplasmic staining of glandular cells and endothelial cells.

## RESEARCH USE

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