

# T54 (A-4): sc-398920

## 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

T54 (A-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 150-175 within an internal region of T54 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

T54 (A-4) is available conjugated to agarose (sc-398920 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398920 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398920 PE), fluorescein (sc-398920 FITC), Alexa Fluor® 488 (sc-398920 AF488), Alexa Fluor® 546 (sc-398920 AF546), Alexa Fluor® 594 (sc-398920 AF594) or Alexa Fluor® 647 (sc-398920 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398920 AF680) or Alexa Fluor® 790 (sc-398920 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398920 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

T54 (A-4) is recommended for detection of T54 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 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.

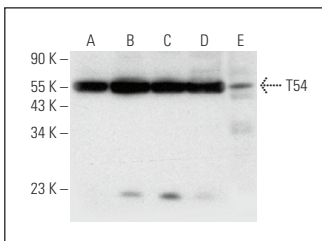
Molecular Weight of T54: 52 kDa.

Positive Controls: A2058 whole cell lysate: sc-364178, HeLa whole cell lysate: sc-2200 or U-251-MG whole cell lysate: sc-364176.

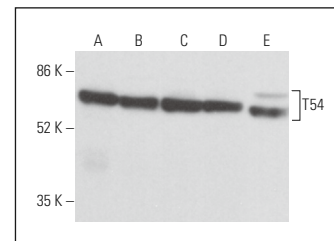
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



T54 (A-4): sc-398920. Western blot analysis of T54 expression in A549 (A), A2058 (B), HeLa (C) and U-251-MG (D) whole cell lysates and human liver tissue extract (E).



T54 (A-4): sc-398920. Western blot analysis of T54 expression in A2058 (A), Hep G2 (B), SK-MEL-24 (C), c4 (D) and AT3B-1 (E) whole cell lysates.

## 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.

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