

# tsg 101 (Y16J): sc-101254

## BACKGROUND

The transformation of a normal cell to one that is malignant can result from mutations in genes that encode proteins with key regulatory functions. Examples include the retinoblastoma gene product (Rb p110), p53, VHL and APC. Using a novel cloning strategy that allows the isolation of previously uncharacterized genes encoding selectable recessive phenotypes, an additional tumor suppressor gene has been identified. This gene, termed tsg 101 for tumor susceptibility gene 101, encodes a stathmin binding domain protein. When expression of this growth inhibitory gene is blocked in NIH/3T3 cells using antisense mRNA, the cells exhibit a transformed phenotype and are tumorigenic in SL6 mice.

## REFERENCES

1. Horowitz, J.M., et al. 1990. Frequent inactivation of the retinoblastoma anti-oncogene is restricted to a subset of human tumor cells. *Proc. Natl. Acad. Sci. USA* 87: 2775-2779.
2. Kern, S.E., et al. 1992. Oncogenic forms of p53 inhibit p53-regulated gene expression. *Science* 256: 827-830.
3. Chop, A.M., et al. 1995. Immunodetection of the presence or absence of full-length APC gene product in human colonic tissues. *Anticancer Res.* 15: 991-997.

## CHROMOSOMAL LOCATION

Genetic locus: TSG101 (human) mapping to 11p15.1; Tsg101 (mouse) mapping to 7 B4.

## SOURCE

tsg 101 (Y16J) is a mouse monoclonal antibody raised against recombinant tsg 101 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

tsg 101 (Y16J) is recommended for detection of tsg 101 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)], 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 tsg 101 siRNA (h): sc-36752, tsg 101 siRNA (m): sc-36753, tsg 101 shRNA Plasmid (h): sc-36752-SH, tsg 101 shRNA Plasmid (m): sc-36753-SH, tsg 101 shRNA (h) Lentiviral Particles: sc-36752-V and tsg 101 shRNA (m) Lentiviral Particles: sc-36753-V.

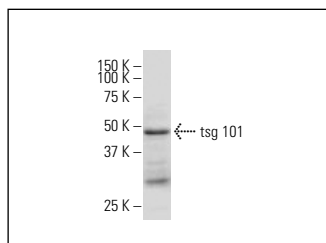
Molecular Weight of tsg 101: 45 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Hs68 cell lysate: sc-2230 or HeLa whole cell lysate: sc-2200.

## 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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



tsg 101 (Y16J): sc-101254. Western blot analysis of tsg 101 expression in K-562 whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Iavello, A., et al. 2016. Role of Alix in miRNA packaging during extracellular vesicle biogenesis. *Int. J. Mol. Med.* 37: 958-966.
2. Mazzeo, A., et al. 2019. Functional analysis of miR-21-3p, miR-30b-5p and miR-150-5p shuttled by extracellular vesicles from diabetic subjects reveals their association with diabetic retinopathy. *Exp. Eye Res.* 184: 56-63.
3. Ruan, Z., et al. 2021. Alzheimer's disease brain-derived extracellular vesicles spread Tau pathology in interneurons. *Brain* 144: 288-309.
4. Ruan, Z., et al. 2022. Functional genome-wide short hairpin RNA library screening identifies key molecules for extracellular vesicle secretion from microglia. *Cell Rep.* 39: 110791.

## 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.



See **tsg 101 (C-2): sc-7964** for tsg 101 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.