SANTA CRUZ BIOTECHNOLOGY, INC.

tsg 101 (51): sc-136111

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.

CHROMOSOMAL LOCATION

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

SOURCE

tsg 101 (51) is a mouse monoclonal antibody raised against amino acids 229-319 of tsg 101 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

tsg 101 (51) is recommended for detection of tsg 101 of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

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, Hep G2 cell lysate: sc-2227 or MCF7 whole cell lysate: sc-2206.

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).

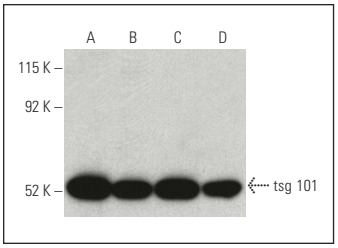
STORAGE

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

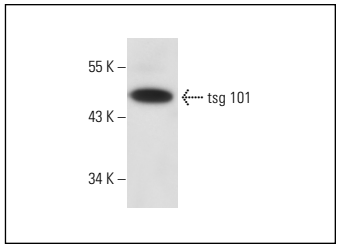
RESEARCH USE

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

DATA



tsg 101 (51): sc-136111. Western blot analysis of tsg 101 expression in K-562 (**A**), Hep G2 (**B**), MCF7 (**C**) and HEK293 (**D**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



tsg 101 (51): sc-136111. Western blot analysis of tsg 101 expression in Hep G2 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Chen, L., et al. 2018. HCC-derived exosomes elicit HCC progression and recurrence by epithelial-mesenchymal transition through MAPK/ERK signalling pathway. Cell Death Dis. 9: 513.
2. Marzano, M., et al. 2019. Differential effects of extracellular vesicles of lineage-specific human pluripotent stem cells on the cellular behaviors of isogenic cortical spheroids. Cells 8: 993.
3. Ning, J., et al. 2021. Imbalance of TGF-β1/BMP-7 pathways induced by M2-polarized macrophages promotes hepatocellular carcinoma aggressiveness. Mol. Ther. 29: 2067-2087.
4. Cochran, A.M., et al. 2021. Extracellular vesicles from the human natural killer cell line NK3.3 have broad and potent anti-tumor activity. Front. Cell Dev. Biol. 9: 698639.
5. Elgamal, S., et al. 2021. Optimizing extracellular vesicles' isolation from chronic lymphocytic leukemia patient plasma and cell line supernatant. JCI Insight 6: 137937.
6. Li, G., et al. 2022. Identification of circulating exosomal microRNAs associated with radioiodine refractory in papillary thyroid carcinoma. J. Pers. Med. 12: 2017.
7. Zhou, B., et al. 2023. Single-cell RNA-sequencing data reveals the genetic source of extracellular vesicles in esophageal squamous cell carcinoma. Pharmacol. Res. 192: 106800.
8. Li, Y., et al. 2024. Extracellular vesicles derived from H_2O_2-stimulated adipose-derived stem cells alleviate senescence in diabetic bone marrow mesenchymal stem cells and restoretheir osteogenic capacity. Drug Des. Devel. Ther. 18: 2103-2124.

CONJUGATES

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