3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

ProductInformation

Anti-TSG101 (N-terminal)
produced in rabbit, affinity isolated antibody

Catalog Number **T5826**

Product Description

Anti-TSG101 (N-terminal) is produced in rabbit using a synthetic peptide corresponding to amino acids 2-20 located at the N-terminus of human TSG101, conjugated to KLH, as immunogen. This sequence is identical in rat and mouse. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-TSG101 (N-terminal) recognizes TSG101, 46 kDa, by immunoblotting. Staining of the TSG101 band in immunoblotting is specifically inhibited with the immunizing peptide.

Tumor susceptibility gene 101 encodes a multi-domain binding protein (TSG101, 46 kDa), that mediates a variety of cellular functions including transcriptional regulation, ubiquitination, endosomal trafficking, proliferation, and cell survival.[1-7] TSG101 is expressed in all tissues throughout development and is essential for both embryonic development and normal cell growth. TSG101 was found to have a central role in protein sorting during endocytosis.[8, 9] TSG101 and its yeast homolog Vps23p assemble into a high molecular weight complex ESCRT-I that functions in endosomal sorting of ubiquitinated membrane or Golgi proteins into multivesicular bodies (MVBs) and lysosomes or vacuoles.[4-6] Human TSG101 is also required for the budding of several enveloped RNA viruses including human immunodeficiency (HIV) and Ebola viruses.[4, 10] TSG101 is involved in the regulation of the p53/MDM2 pathway by affecting MDM2 stability.[8, 11] TSG101 is an inactive homolog of ubiquitin conjugating E2 enzymes. The N-terminal UEV domain (N-terminal ubiquitin E2 variant) of TSG101 is similar to a domain found in inactive forms of ubiquitin-conjugating enzymes, suggesting that TSG101 may act as a dominant-negative inhibitor of ubiquitination. This domain binds to a P(T/S)AP sequence of HIV-1 p6 Gag and Ebola Vp40 proteins required for budding. The proline-rich domain of TSG101 was found to act as an activation domain in transcriptional regulation. The C-terminal coiled-coil (CC2) domain was predicted to interact with the cell growth regulating protein stathmin and is involved in potential co-repressor activity.[3] Subcellular localization of TSG101 fluctuates in a cell-cycle dependent manner being localized in the nucleus and Golgi complex during interphase and in mitotic spindles and centrosome during mitosis.[12]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody concentration: ~1 mg/mL

Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 1-2 µg/mL is recommended using cell lysates of rat fibroblast Rat-1 cells, mouse fibroblast NIH-3T3 cells, human A431 cells, and rat brain extract (S1 cytosolic fraction).

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

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