

Product Datasheet

TSG101 Antibody (4A10) NB200-112

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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NB200-112

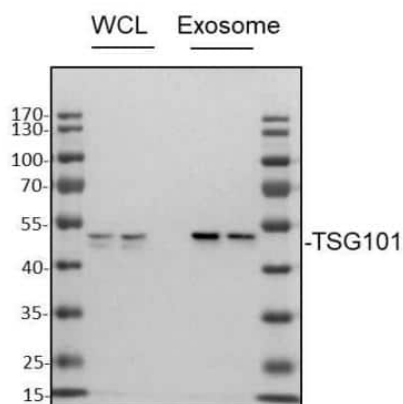
TSG101 Antibody (4A10)

Product Information	
Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	4A10
Preservative	No Preservative
Isotype	IgG1
Purity	Antigen Affinity-purified
Buffer	PBS
Target Molecular Weight	44 kDa
Product Description	
Host	Mouse
Gene ID	7251
Gene Symbol	TSG101
Species	Human, Mouse, Rat, Porcine, Canine, Hamster, Monkey, Zebrafish
Reactivity Notes	Use in Rat reported in scientific literature (PMID:34576126). Primate reactivity reported in scientific literature (PMID: 18267010). Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Mouse-On-Mouse blocking reagent may be needed for IHC and ICC experiments to reduce high background signal. You can find these reagents under catalog numbers PK-2200-NB and MP-2400-NB. Please contact Technical Support if you have any questions.
Marker	Exosome Marker
Immunogen	Amino acids 167-374 of TSG101 protein expressed in E. coli.
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, ELISA, Electron Microscopy, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunoprecipitation, Immunohistochemistry Free-Floating, Knockdown Validated
Recommended Dilutions	Western Blot 1:500-1:3000, Flow Cytometry 1:25-1:200, ELISA 1:100 - 1:2000, Immunohistochemistry 1:100, Immunocytochemistry/ Immunofluorescence 1:500 -1:1000, Immunoprecipitation 1:10-1:500, Immunohistochemistry-Paraffin 1:100-1:1000, Electron Microscopy 1:10, Immunohistochemistry Free-Floating, Knockdown Validated

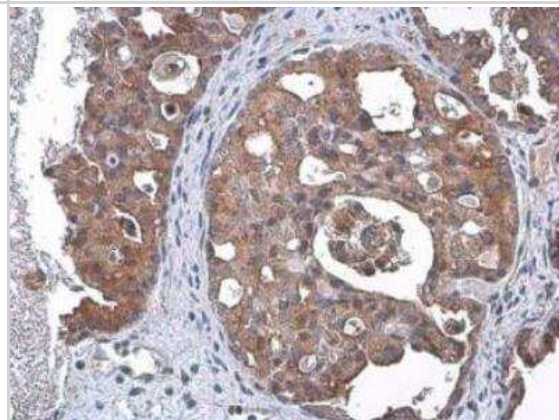


Images

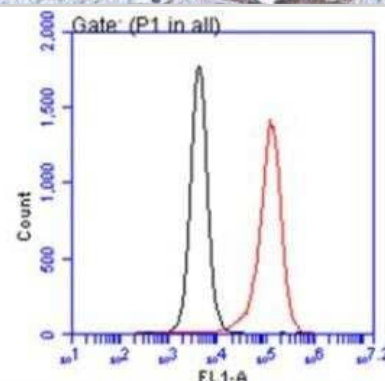
Western Blot: TSG101 Antibody (4A10) [NB200-112] - Whole cell lysates (WCL) or exosome sample from MDA-MB-231 cells was loaded with 10 ug/lane. 10% SDS-PAGE. TSG101 Antibody (NB200-112) was used for primary antibody: 1:1000, 4C, overnight. Image from verified customer review.



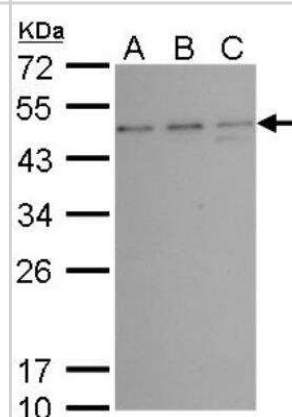
Immunohistochemistry-Paraffin: TSG101 Antibody (4A10) [NB200-112] - Human ovarian cancer. TSG101 stained by TSG101 antibody [4A10] (NB200-112). Antigen Retrieval: Citrate buffer, pH 6.0, 15 min



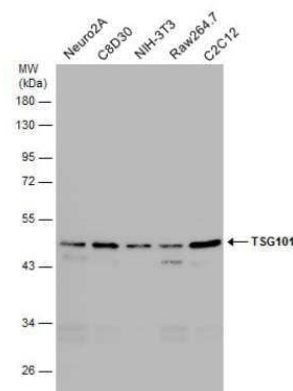
Flow Cytometry: TSG101 Antibody (4A10) [NB200-112] - TSG101 antibody [4A10] (NB200-112) detects TSG101 protein by flow cytometry analysis. Sample: THP-1 cell. Black: Unlabelled sample was used as a control. Red: TSG101 antibody [4A10] (NB200-112). Acquisition of 20,000 events were collected using a Dylight 488-conjugated secondary antibody for FACS analysis.



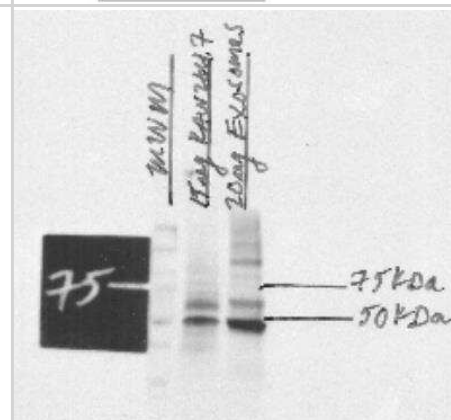
Western Blot: TSG101 Antibody (4A10) [NB200-112] - A. 30 ug NIH-3T3 whole cell lysate/extract. B. 30 ug JC whole cell lysate/extract. C. 30 ug BCL-1 whole cell lysate/extract.



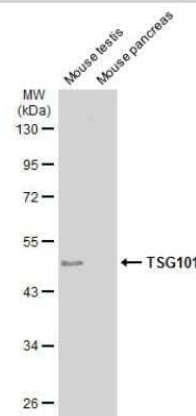
Western Blot: TSG101 Antibody (4A10) [NB200-112] - Various whole cell extracts (30 ug) were separated by 10% SDS-PAGE, and the membrane was blotted with TSG101 antibody [4A10] diluted at 1:500. The HRP-conjugated anti-mouse IgG antibody (NBP2-19382) was used to detect the primary antibody.



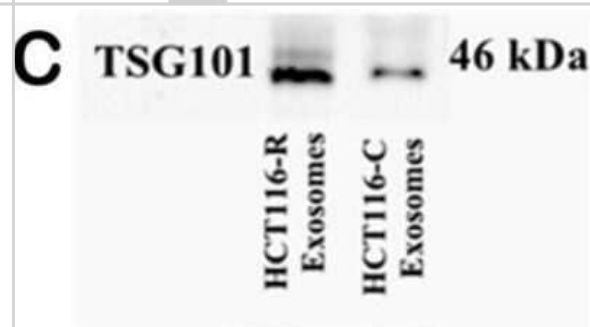
Western Blot: TSG101 Antibody (4A10) [NB200-112] - Lane 1: MWM, Lane 2: TSG101 in RAW 264.7 Whole Cell Lysate, Lane 3: Exosome Lysate. Used primary antibody at 1:500 and Donkey Anti-Mouse at 0.5 ug/mL (this could be titrated down to reduce background). Used picogram sensitivity ECL reagents. Image from verified customer review.



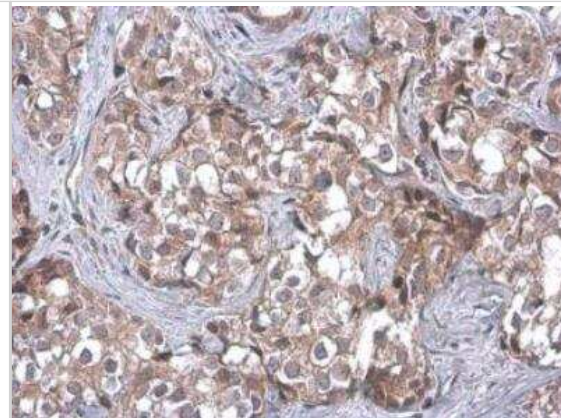
Western Blot: TSG101 Antibody (4A10) [NB200-112] - Various tissue extracts (50 ug) were separated by 10% SDS-PAGE, and the membrane was blotted with TSG101 antibody [4A10] diluted at 1:500. The HRP-conjugated anti-mouse IgG antibody (NBP2-19382) was used to detect the primary antibody.



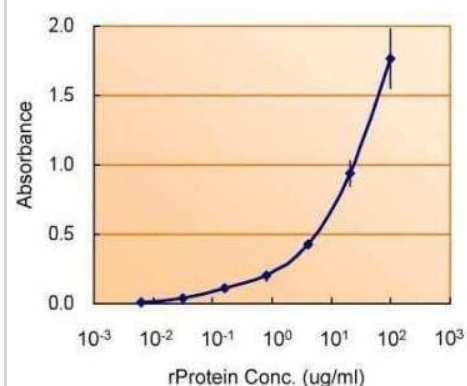
Western Blot: TSG101 Antibody (4A10) [NB200-112] - Characterization of exosomes. Western blot analysis of exosomes revealed differential expression of TSG101 between HCT116-R exosomes and HCT116-P exosomes. Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/s41598-019-53063-y>), licensed under a CC-BY license.



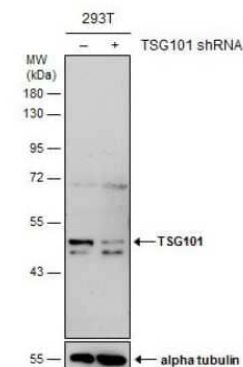
Immunohistochemistry-Paraffin: TSG101 Antibody (4A10) [NB200-112] - Human breast carcinoma. TSG101 stained by TSG101 antibody [4A10] (NB200-112). Antigen Retrieval: Citrate buffer, pH 6.0, 15 min



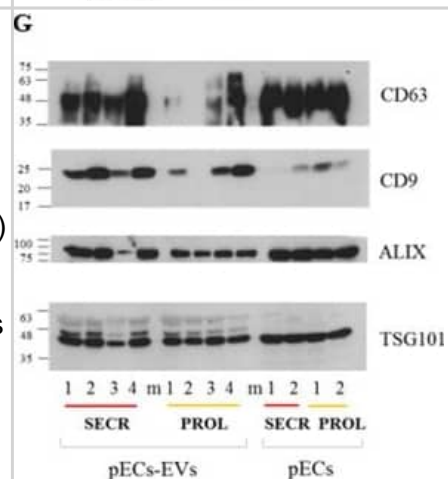
ELISA: TSG101 Antibody (4A10) [NB200-112] - ELISA detection of TSG101 for capture at a concentration of 5 ug/mL and TSG101 for detection at a concentration of 1.5 ug/mL.



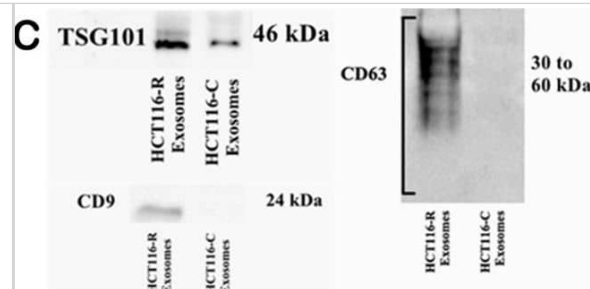
Knockdown Validated: TSG101 Antibody (4A10) [NB200-112] - Non-transfected (-) and transfected (+) 293T whole cell extracts (30 ug) were separated by 10% SDS-PAGE, and the membrane was blotted with TSG101 antibody [4A10] diluted at 1:500.



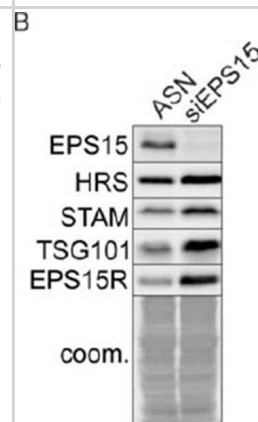
Western Blot: TSG101 Antibody (4A10) [NB200-112] - Characterization of pECs-EVs from different women in secretory & proliferative phase of cycle. Representative TEM images of pECs-EVs from secretory (A,B) & proliferative phase (C,D). Scale bars: 50 nm (A,C); 100 nm (B,D). Representative nanoparticle tracking analysis plots of pECs-EVs from secretory (E) & proliferative phase (F). Western blot showing the presence of different canonical EV markers (CD63, CD9, Alix & TSG101) in secretory & proliferative phase pECs-EVs (n = 4) (G). Negative EV markers used were Calnexin (ER), β -tubulin & the cytosolic form of DCXR (H). The same markers were evaluated in pECs protein extract as controls for EV enrichment of these markers. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/32483153>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



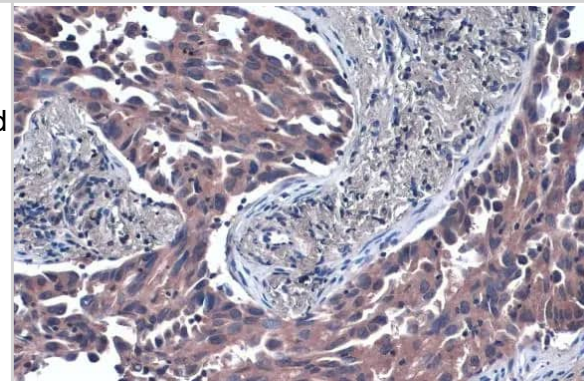
Western Blot: TSG101 Antibody (4A10) [NB200-112] - Characterization of exosomes. (A) Representative TEM images of exosomes at 22000x magnification (Left) HCT116-R exosomes & (Right) HCT116-P exosomes. (B) Enlarged planar view of a cup-shaped structure for single exosome in our samples at 87000x magnification. (C) Western blot analysis of exosomes revealed differential expression of TSG101, CD9, & CD63 between HCT116-R exosomes & HCT116-P exosomes. (D) Average size distribution & zeta potential of exosomes measured in Zetasizer. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/31712601>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



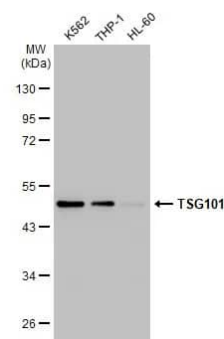
Western Blot: TSG101 Antibody (4A10) [NB200-112] - EPS15 depletion affects late endosomal maturation. (A) Co-depletion of SPOPL an EPS15 has an additive effect on influenza A virus infection. (B) EPS15 depletion stabilizes ESCRT components HRS, STAM & TSG101. (C) EPS15 depletion affects LDL uptake in cells resulting in an accumulation of LDL in enlarged vacuoles (upper panel). Late endosomes, visualized by life-cell microscopy of GFP-RAB7, are enlarged in cells depleted of EPS15 (lower panel). DOI:<http://dx.doi.org/10.7554/eLife.13841.016> Image collected & cropped by CiteAb from the following publication (<https://elifesciences.org/articles/13841>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



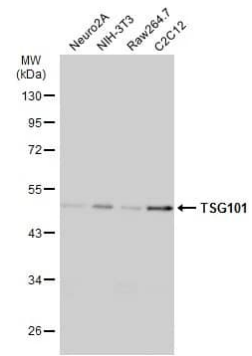
Immunohistochemistry-Paraffin: TSG101 Antibody (4A10) [NB200-112] - TSG101 antibody [4A10] detects TSG101 protein at cytoplasm by immunohistochemical analysis. Sample: Paraffin-embedded human lung cancer. TSG101 stained by TSG101 antibody [4A10] (NB200-112) diluted at 1:50. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min



Western Blot: TSG101 Antibody (4A10) [NB200-112] - Various whole cell extracts (30 ug) were separated by 10% SDS-PAGE, and the membrane was blotted with TSG101 antibody [4A10] (NB200-112) diluted at 1:500. The HRP-conjugated anti-mouse IgG antibody was used to detect the primary antibody.



Western Blot: TSG101 Antibody (4A10) [NB200-112] - Various whole cell extracts (30 ug) were separated by 10% SDS-PAGE, and the membrane was blotted with TSG101 antibody [4A10] (NB200-112) diluted at 1:500. The HRP-conjugated anti-mouse IgG antibody was used to detect the primary antibody.



Publications

Abu N, Othman N, Ab Razak NS et al. Extracellular Vesicles Derived From Colorectal Cancer Affects CD8 T Cells: An Analysis Based on Body Mass Index *Frontiers in Cell and Developmental Biology* 2020-11-26 [PMID: 33324632] (Western Blot, Human)

Sung SE, Seo MS, Kang KK et al. Isolation and Characterization of Extracellular Vesicle from Mesenchymal Stem Cells of the Epidural Fat of the Spine *Asian Spine Journal* 2022-04-30 [PMID: 34461688] (Western Blot, Human)

Kim T, Choodinatha HK, Kim KS et al. Understanding the role of soluble proteins and exosomes in non-invasive urine-based diagnosis of preeclampsia *Scientific Reports* 2024-10-15 [PMID: 39406891]

Sarah E. Cummings, Sean P. Delaney, Frederic St-Denis Bissonnette, Andrew Stalker, Gauri Muradia, Jelica Mehic, Tyson E. Graber, Tommy Alain, Jessie R. Lavoie SARS-CoV-2 antigen-carrying extracellular vesicles activate T cell responses in a human immunogenicity model *iScience* 2023-12-12 [PMID: 38226155]

Shirley N Tang, Ana I Salazar-Puerta, Mary K Heimann, Kyle Kuchynsky, María A Rincon-Benavides, Mia Kordowski, Gilian Gunsch, Lucy Bodine, Khady Diop, Connor Gantt, Safdar Khan, Anna Bratasz, Olga Kokiko-Cochran, Julie Fitzgerald, Damien M Laudier, Judith A Hoyland, Benjamin A Walter, Natalia Higueta-Castro, Devina Purmessur Engineered extracellular vesicle-based gene therapy for the treatment of discogenic back pain. *Biomaterials* 2024-04-01 [PMID: 38583365]

Zuppone S, Zarovni N, Noguchi K et al. Novel loading protocol combines highly efficient encapsulation of exogenous therapeutic toxin with preservation of extracellular vesicles properties, uptake and cargo activity *bioRxiv* 2023-11-15 (Western Blot, Human)

Mut M, Adiguzel Z, Cakir-Aktas C et al. Extracellular-Vesicle-Based Cancer Panels Diagnose Glioblastomas with High Sensitivity and Specificity *Cancers* 2023-07-26 [PMID: 37568598] (WB, Human)

de la Cruz-Ojeda P, Schmid T, Boix L et al. miR-200c-3p, miR-222-5p, and miR-512-3p Constitute a Biomarker Signature of Sorafenib Effectiveness in Advanced Hepatocellular Carcinoma Cells 2022-08-28 [PMID: 36078082] (WB, Human)

Vanni VS UTERINE FLUID EXTRACELLULAR VESICLES AS A LIQUID BIOPSY FOR THE DIAGNOSIS OF ENDOMETRIAL RECEPTIVITY Thesis 2022-01-01 (WB, Human)

Zuppone S, Zarovni N, Vago R The cell type dependent sorting of CD9- and CD81 to extracellular vesicles can be exploited to convey tumor sensitive cargo to target cells *Drug delivery* 2023-12-01 [PMID: 36579638] (WB, Human)

Details:

Dilution used in WB 1:1000

Hough KP, Deshane JS. Cutting edge approaches for rapid characterization of airway exosomes *Methods* 2020-01-19 [PMID: 31953152] (Func)

Details:

Citation using the FITC version of this antibody.

Pan Y, Chen T, Zhang Q et al. Highly Selective Purification of Plasma Extracellular Vesicles Using Titanium Dioxide Microparticles for Depicting the Metabolic Signatures of Diabetic Retinopathy *Analytical chemistry* 2022-10-18 [PMID: 36197877]

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Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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