

# Product Datasheet

## GW182 Antibody - BSA Free

### NBP1-28751

Unit Size: 100 ul

Store at 4C. Do not freeze.

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**NBP1-28751**

GW182 Antibody - BSA Free

**Product Information**

<b>Unit Size</b>	100 ul
<b>Concentration</b>	1.0 mg/ml
<b>Storage</b>	Store at 4C. Do not freeze.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	0.09% Sodium Azide
<b>Isotype</b>	IgG
<b>Purity</b>	Immunogen affinity purified
<b>Buffer</b>	Tris-Citrate/Phosphate (pH 7.0 - 8.0)

**Product Description**

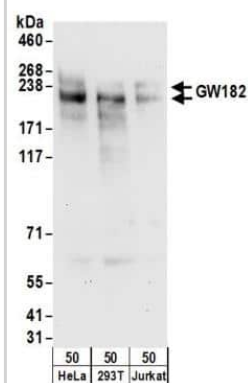
<b>Description</b>	Novus Biologicals Rabbit GW182 Antibody - BSA Free (NBP1-28751) is a polyclonal antibody validated for use in WB and IP. Anti-GW182 Antibody: Cited in 11 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
<b>Host</b>	Rabbit
<b>Gene ID</b>	27327
<b>Gene Symbol</b>	TNRC6A
<b>Species</b>	Human, Mouse
<b>Reactivity Notes</b>	Mouse reactivity reported in (PMID: 29935344).
<b>Marker</b>	P/GW Body Marker
<b>Immunogen</b>	The immunogen recognized by this antibody maps to a region between residue 575 and 625 of human GW182/glycine-tryptophan protein of 182 kDa (NP_055309.2).

**Product Application Details**

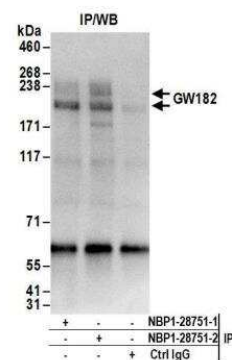
<b>Applications</b>	Western Blot, Immunoprecipitation, Knockdown Validated
<b>Recommended Dilutions</b>	Western Blot 1:2000-1:10000, Immunoprecipitation 6 ug/mg lysate, Knockdown Validated

**Images**

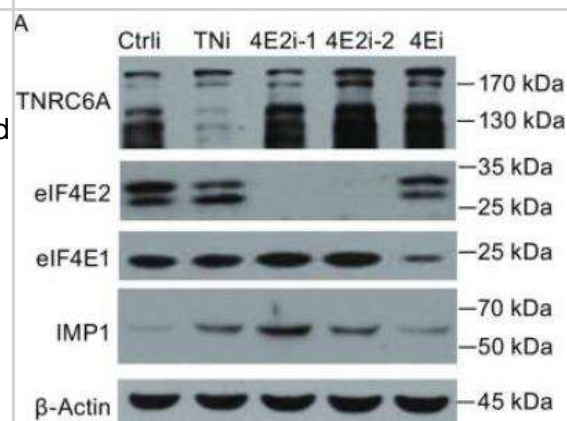
Western Blot: GW182 Antibody [NBP1-28751] - Detection of Human GW182 by Western Blot. Samples: Whole cell lysate (50 ug) from HeLa, 293T, and Jurkat cells. Antibodies: Affinity purified rabbit anti-GW182 antibody NBP1-28751 used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 30 seconds.



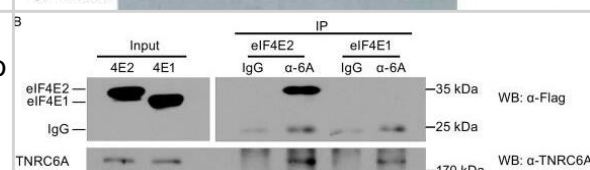
**Western Blot: Rabbit Polyclonal GW182 Antibody [NBP1-28751] -** Detection of human GW182 by western blot of immunoprecipitates. Samples: Whole cell lysate (50 ug) from HeLa cells. Antibodies: Affinity purified rabbit anti-GW182 antibody NBP1-28751 (lot NBP1-28751-2) used for IP at 6 ug/mg lysate. GW182 was also immunoprecipitated by a previous lot (lot NBP1-28751-1) of this antibody. For blotting immunoprecipitated GW182, NBP1-28751 was used at 1 ug/ml. Detection: Chemiluminescence with an exposure time of 3 seconds.



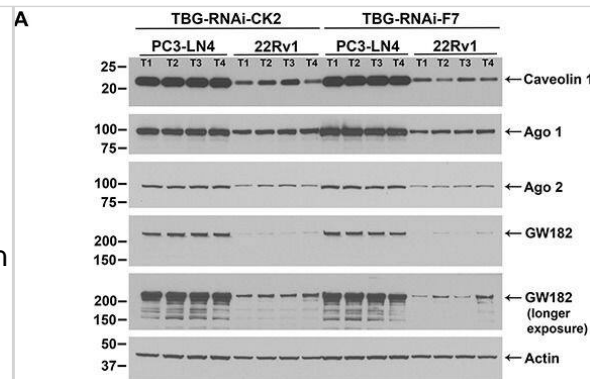
**Western Blot: GW182 Antibody [NBP1-28751] -** Downregulation of eIF4E2 increases the protein levels of endogenous IMP1. HeLa cells were transfected with siRNAs indicated. At 48 h posttransfection, cells were lysed. A fraction of the lysate was subjected to SDS-PAGE followed by Western blotting. Image collected and cropped by CiteAb from the following publication ([link.springer.com/10.1007/s13238-017-0444-0](https://link.springer.com/10.1007/s13238-017-0444-0)), licensed under a CC-BY license.



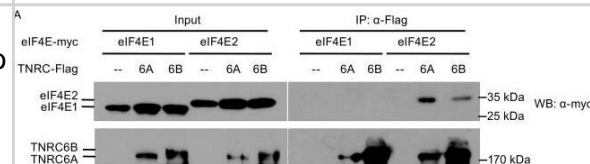
**Western Blot: GW182 Antibody [NBP1-28751] -** TNRC6A interacts with eIF4E2. (A) Plasmids expressing proteins indicated were transfected into HEK293T cells. At 48 h posttransfection, cells were lysed & the lysates were immunoprecipitated (IP) in the presence of RNase A. The precipitates were resolved on SDS-PAGE followed by Western blotting. (B) A plasmid expressing Flag-tagged eIF4E1 or eIF4E2 was transfected into HEK293T cells. At 48 h posttransfection, cells were lysed & the lysates were immunoprecipitated with the anti-TNRC6A antibody or control IgG in the presence of RNase A. The precipitates were resolved on SDS-PAGE followed by Western blotting. (C) Upper: schematic representation of TNRC6A truncation mutants. Lower: A plasmid expressing the TNRC6A mutant indicated & a plasmid expressing myc-tagged eIF4E2 were transiently transfected into HEK293T cells. At 48 h posttransfection, cells were lysed & the lysates were immunoprecipitated with anti-Flag antibody in the presence of RNase A followed by Western blotting. (D) Bacterially expressed Flag-tagged eIF4E2 or eIF4E1 was incubated with Glutathione Sepharose 4B bound fusion protein of GST & the C-terminal domain of TNRC6A (6A-C). The precipitates were washed & resolved on SDS-PAGE followed by commassie brilliant blue staining (lower) & Western blotting (upper) Image collected & cropped by CiteAb from the following publication (<https://academic.oup.com/proteincell/article/8/10/750/6765124>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



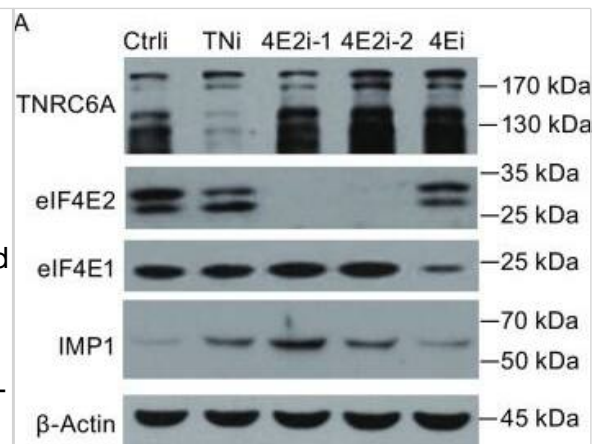
**Western Blot: GW182 Antibody [NBP1-28751] - Cellular expression of TBG nanocapsule uptake & RNAi-CK2 oligomer processing markers in xenograft tumors**(A) Expression levels for key nanocapsule entry & oligomer processing proteins were detected by immunoblot in PC3-LN4 & 22Rv1 cytosolic tumor lysates from the dose response studies. The signals for four mice per group are shown, the proteins detected are indicated on the right, & the size markers are indicated on the left. Two exposures are provided for GW182 in order to show detectable signals in linear range in all lanes for both PC3-LN4 & 22Rv1 tumor lysates. T1, T2, T3, & T4 labels indicate different tumors within the treatment & xenograft model groups. Antibody sourcing information is listed in Materials & Methods. Actin signal was used as the loading control. (B) Indirect immunofluorescence detection of GW182 proteins & GW bodies in PC3-LN4 tumors. Results from 3 mice treated with TNG-RNAi-CK2 & 3 mice treated with TBG-RNAi-F7 are shown. T1, T2, & T3 labels indicate different tumors. Antibody sourcing information is listed in Materials & Methods. Nuclei were counterstained with Sytox® Green. Scale bar represents 20 µm. Image collected & cropped by CiteAb from the following publication (<https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.11442>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



**Western Blot: GW182 Antibody [NBP1-28751] - TNRC6A interacts with eIF4E2.** (A) Plasmids expressing proteins indicated were transfected into HEK293T cells. At 48 h posttransfection, cells were lysed & the lysates were immunoprecipitated (IP) in the presence of RNase A. The precipitates were resolved on SDS-PAGE followed by Western blotting. (B) A plasmid expressing Flag-tagged eIF4E1 or eIF4E2 was transfected into HEK293T cells. At 48 h posttransfection, cells were lysed & the lysates were immunoprecipitated with the anti-TNRC6A antibody or control IgG in the presence of RNase A. The precipitates were resolved on SDS-PAGE followed by Western blotting. (C) Upper: schematic representation of TNRC6A truncation mutants. Lower: A plasmid expressing the TNRC6A mutant indicated & a plasmid expressing myc-tagged eIF4E2 were transiently transfected into HEK293T cells. At 48 h posttransfection, cells were lysed & the lysates were immunoprecipitated with anti-Flag antibody in the presence of RNase A followed by Western blotting. (D) Bacterially expressed Flag-tagged eIF4E2 or eIF4E1 was incubated with Glutathione Sepharose 4B bound fusion protein of GST & the C-terminal domain of TNRC6A (6A-C). The precipitates were washed & resolved on SDS-PAGE followed by commassie brilliant blue staining (lower) & Western blotting (upper) Image collected & cropped by CiteAb from the following publication (<https://academic.oup.com/proteincell/article/8/10/750/6765124>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: GW182 Antibody [NBP1-28751] - Downregulation of eIF4E2 increases the protein levels of endogenous IMP1. HeLa cells were transfected with siRNAs indicated. At 48 h posttransfection, cells were lysed. (A) A fraction of the lysate was subjected to SDS-PAGE followed by Western blotting. (B) The rest cell lysate was used to extract RNA, followed by RT-qPCR measurement of the RNA levels. Relative IMP1 protein levels were quantified with the Image J software & normalized with the  $\beta$ -actin levels. Translational efficiency was calculated as relative protein level divided by mRNA level. Fold repression was calculated as the value in the presence of the control siRNA divided by that in the presence of the targeting siRNA. Data presented are means  $\pm$  SD of three independent experiments. The P value is determined by two-tailed Student's t test. ns, nonsignificant. \*P < 0.05; \*\*P < 0.01; \*\*\*P < 0.005. Ctrl, control siRNA; TNi, siRNAs targeting TNRC6A & TNRC6B; 4E2i, siRNA targeting eIF4E2; 4Ei, siRNA targeting eIF4E1 Image collected & cropped by CiteAb from the following publication (<https://academic.oup.com/proteincell/article/8/10/750/6765124>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Seth P, Hsieh PN, Jamal S et al. Regulation of MicroRNA Machinery and Development by Interspecies S-Nitrosylation Cell 2019-02-21 [PMID: 30794773] (Western Blot, Human)

Shin E, Jin H, Suh DS et al. An alternative miRISC targets a cancer-associated coding sequence mutation in FOXL2 EMBO J 2020-11-20 [PMID: 33215742] (WB, Human)

### Details:

Western blot analysis performed on KGN and COV434 cells transfected with wildtype FOXL2 and C134W plasmids

Shin E, Jin H, Suh DS et al. An alternative miRISC targeting a coding mutation site in FOXL2 links to granulosa cell tumor bioRxiv 2020-01-01 (WB, Human)

Wilczynska A, Gillen SL, Schmidt T, et al. eIF4A2 drives repression of translation at initiation by Ccr4-Not through purine-rich motifs in the 5'UTR Genome Biol. 2019-12-02 [PMID: 31791371] (WB, Human)

Jeppesen, DK;Fenix, AM;Franklin, JL;Higginbotham, JN;Zhang, Q;Zimmerman, LJ;Liebler, DC;Ping, J;Liu, Q;Evans, R;Fissell, WH;Patton, JG;Rome, LH;Burnette, DT;Coffey, RJ; Reassessment of Exosome Composition Cell 2019-04-04 [PMID: 30951670] (WB, Human)

Fu Y, Chen L, Chen C et al. Crosstalk between alternative polyadenylation and miRNA in regulation of protein translational efficiency. Genome Res. 2018-09-18 [PMID: 30228199] (WB, Mouse)

Jung E, Seong Y, Jeon B et al. MicroRNAs of miR-17-92 cluster increase gene expression by targeting mRNA-destabilization pathways Biochim. Biophys. Acta 2018-06-20 [PMID: 29935344] (WB, Mouse)

Chen S, Gao G. MicroRNAs recruit eIF4E2 to repress translation of target mRNAs Protein Cell 2017-07-28 [PMID: 28755203] (WB, Human)

Ahmed K, Kren BT, Abedin MJ et al. CK2 targeted RNAi therapeutic delivered via malignant cell-directed tenfibgen nanocapsule: dose and molecular mechanisms of response in xenograft prostate tumors. Oncotarget. 2016-09-20 [PMID: 27557516] (IB, Mouse)

Meijer HA, Kong YW, Lu W et al. Translational repression and eIF4A2 activity are critical for miRNA mediated gene regulation. Science 2013-04-05 [PMID: 23559250] (WB, Human)

Kamenska A, Lu WT, Kubacka D et al. Human 4E-T represses translation of bound mRNAs and enhances microRNA-mediated silencing. Nucleic Acids Res 2013-12-13 [PMID: 24335285] (WB, Human)

Wagschal A, Rousset E, Basavarajaiah P et al. Microprocessor, Setx, Xrn2, and Rps6 Co-operate to Induce Premature Termination of Transcription by RNAPII Cell 2012-09-14 [PMID: 22980978] (WB, Human)





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### **Products Related to NBP1-28751**

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HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP1-88231PEP	GW182 Recombinant Protein Antigen

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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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