

# Product Datasheet

## ZEB2 Antibody - BSA Free NBP1-82991

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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**NBP1-82991**

ZEB2 Antibody - BSA Free

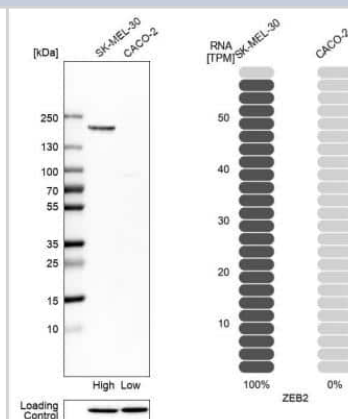
Product Information	
Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS (pH 7.2) and 40% Glycerol

Product Description	
Host	Rabbit
Gene ID	9839
Gene Symbol	ZEB2
Species	Human, Mouse
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 22965162).
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: SPVKPMDSITSPSIAELHNSVTNCDPPLRLTKPSHFTNIKPVEKLDHSRSNTPSP LNLSTSSKNSHSSSYTPNSFSSEELQAEPDLDSLPLKQMKEPKSIATKNKTKAS SISLDHNSVSSSSE

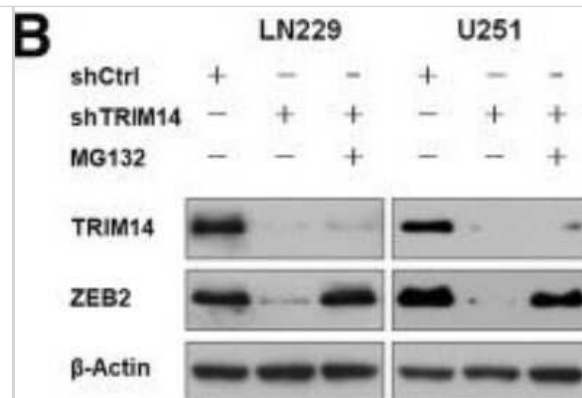
Product Application Details	
Applications	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Knockdown Validated
Recommended Dilutions	Western Blot 0.04 - 0.4 ug/ml, Flow Cytometry Reported in scientific literature (PMID: 28790065), Immunohistochemistry 1:500 - 1:1000, Immunocytochemistry/ Immunofluorescence Reported in scientific literature (PMID: 22965162), Immunohistochemistry-Paraffin 1:500 - 1:1000, Knockdown Validated Reported in scientific literature (PMID: 31934283)
Application Notes	For IHC-Paraffin, HIER pH 6 retrieval is recommended.

**Images**

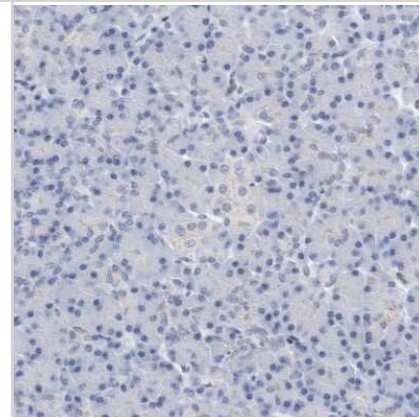
Western Blot: ZEB2 Antibody [NBP1-82991] - Analysis in human cell lines SK-MEL-30 and Caco-2 using Anti-ZEB2 antibody. Corresponding ZEB2 RNA-seq data are presented for the same cell lines. Loading control: Anti-HDAC1.



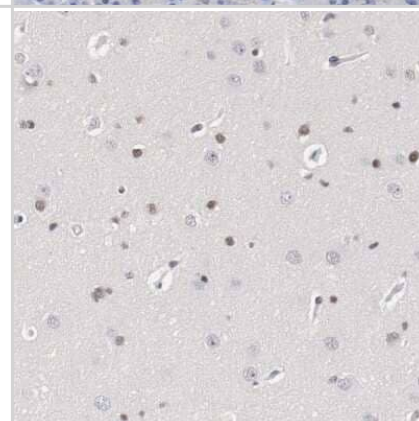
Western Blot: ZEB2 Antibody [NBP1-82991] - Depletion of TRIM14 increased ZEB2 polyubiquitination and proteasomal degradation. Western blot analysis of TRIM14, ZEB2 and beta-actin in LN229 and U251 cells transduced with the indicated shRNA in the absence or presence of 10uM MG132. Image collected and cropped by CiteAb from the following publication (<https://jeccr.biomedcentral.com/articles/10.1186/s13046-019-1070-x>), licensed under a CC-BY license.



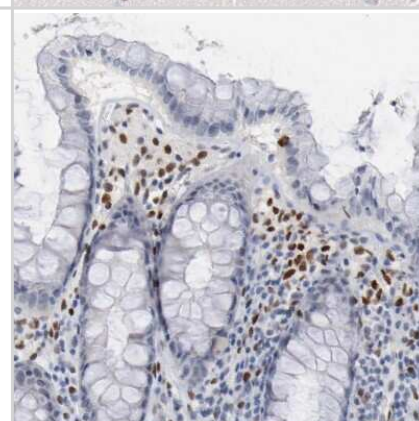
Immunohistochemistry-Paraffin: ZEB2 Antibody [NBP1-82991] - Staining of human pancreas shows no positivity as expected.



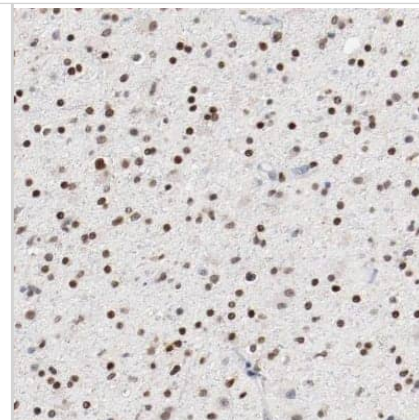
Immunohistochemistry-Paraffin: ZEB2 Antibody [NBP1-82991] - Staining of human cerebral cortex shows moderate nuclear positivity in glial cells.



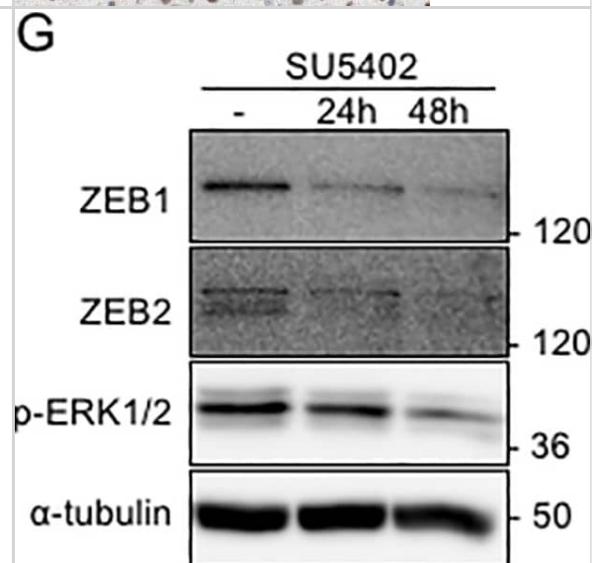
Immunohistochemistry-Paraffin: ZEB2 Antibody [NBP1-82991] - Staining of human colon shows moderate nuclear positivity in a subset of lymphoid cells.



Immunohistochemistry-Paraffin: ZEB2 Antibody [NBP1-82991] - Staining of human glioma shows moderate nuclear positivity in tumor cells.

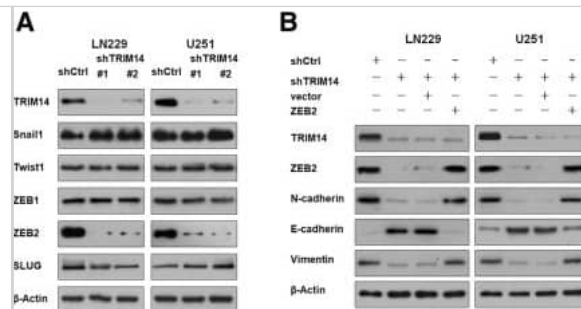


SU5402, FGFR1 inhibitor, affects the EMT transcription factors. (A, B) ERK1/2 phosphorylation (p-ERK1/2) was determined by immunoblotting in HSC-4 & OTC-04 treated for 30 min with 30 ng/ml FGF2 or 30 ng/ml FGF7 in presence of 10% FBS (A) & in TSU & HOC313 cells treated for 1 h with 30 ng/ml FGF2 or 30  $\mu$ M SU5402 in absence of FBS (B). F2, FGF2; F7, FGF7; SU, SU5402. (C) We have previously reported that, after treatment with TGF- $\beta$ , NMuMG cells underwent EMT with the IIIc-isoform of FGFR1[17]. After NMuMG cells pretreated with TGF- $\beta$  were transfected with mouse Fgfr1 siRNA or treated with SU5402, the cells were further incubated in culture medium (CM) from TSU cells. SU, SU5402; siFR1, siRNA against mouse Fgfr1. (D) FGF2 mRNA levels were determined by RT-qPCR analyses. The ratio of FGF2 mRNA to GAPDH mRNA in HSC-4 cells was indicated as "1". Each value represents the mean  $\pm$  SD of triplicate determinations from a representative experiment. Similar results obtained in at least three independent experiments. (E) ERK1/2 phosphorylation (p-ERK1/2) in TSU & HOC313 cells were monitored in presence of indicated concentration of SU5402 for 1 h under serum-free culture conditions, followed by immunoblot analysis. (F, G) Expression of indicated genes in TSU cells under serum-free culture conditions was determined by RT-qPCR (F) & immunoblot (G) analyses, following treatment with 10  $\mu$ M SU5402. Each value represents the mean  $\pm$  SD of triplicate determinations from a representative experiment. Similar results obtained from at least three independent experiments. p values were determined by Student's t-test. \*\*p < 0.01. (H) TSU cells treated with 10  $\mu$ M U0126 in absence of FBS were subjected to immunoblotting with the indicated antibodies.  $\alpha$ -tubulin was used as a loading control (A, B, C, E, G, & H). Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/31682640>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

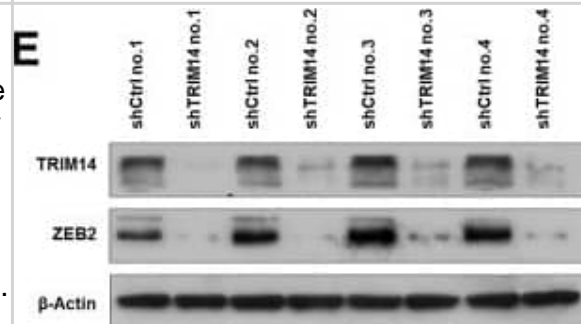




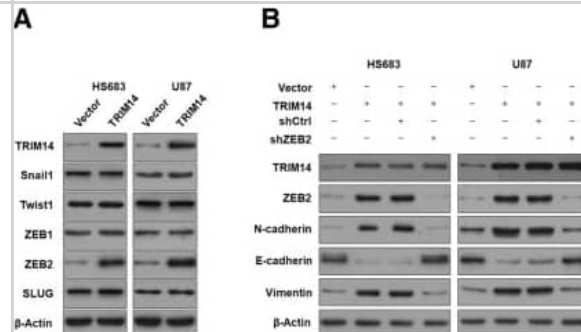
Western Blot: ZEB2 Antibody [NBP1-82991] - ZEB2 is a downstream target of TRIM14. a Western blot analysis of TRIM14, EMT related biomarkers (Snail1, Twist1, ZEB1, ZEB2 & SLUG), &  $\beta$ -actin in LN229 & U251 cells transfected with shTRIM14-1, shTRIM14-2 or control shRNA. b Western blot analysis of TRIM14, N-cadherin, E-cadherin, Vimentin &  $\beta$ -actin in LN229 & U251 cells transduced with the indicated plasmid. c Representative images of transwell invasion assay using LN229 & U251 cells transfected with the indicated plasmid. Quantification of transwell invasion assay is shown. \*\*\* $p < 0.001$ ;  $n = 3$  experiment. d Representative images of wound healing assay using LN229 & U251 cells with the indicated plasmid. Quantification of wound healing assay is shown. \*\*\* $p < 0.001$ ,  $n = 3$  experiments. e Representative images of 3D spheroid BME cell invasion assays using LN229 & U251 cells with the indicated plasmid. Quantification of 3D spheroid BME cell invasion assays is shown. \*\*\* $p < 0.001$ ,  $n = 3$  experiments Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30728039>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: ZEB2 Antibody [NBP1-82991] - TRIM14 function was demonstrated in vivo & IHC. a ShCtrl-transplanted & shTRIM14-transplanted LN229 cells were counted & transplanted in orthotopic nude mice model respectively,  $n = 6$ . b Survival curve of shCtrl-transplanted or shTRIM14-transplanted intracranial xenografts. \*\*\* $P < 0.001$ ,  $n = 6$ . c Representative pseudocolour bioluminescence images of orthotopic tumours bearing control or TRIM14-depleted LN229 cells on the days as indicated. Quantification of tumor volume is shown. \*\*\* $p < 0.001$ ;  $n = 3$  experiment. d The HE assay was performed to show tumor cytostructure. e Western blot analysis of TRIM14 & ZEB2 extracted from four pairs mice from shCtrl-transplanted group & shCtrl-transplanted group. Equal loading is confirmed by  $\beta$ -actin levels. f IHC staining of TRIM14 & ZEB2 in four representative GBM specimens Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30728039>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: ZEB2 Antibody [NBP1-82991] - ZEB2 is involved in the function of TRIM14. a Western blot analysis of TRIM14, EMT related biomarkers (Snail1, Twist1, ZEB1, ZEB2 & SLUG), &  $\beta$ -actin in HS683 & U87 cells transfected with vector or TRIM14. b Western blot analysis of TRIM14, N-cadherin, E-cadherin, Vimentin &  $\beta$ -actin in HS683 & U87 cells transduced with the indicated plasmid. c Representative images of transwell invasion assay using HS683 & U87 cells transfected with the indicated plasmid. Quantification of transwell invasion assay is shown. \*\*\* $p < 0.001$ ;  $n = 3$  experiment. d Representative images of wound healing assay using HS683 & U87 cells with the indicated plasmid. Quantification of wound healing assay is shown. \*\*\* $p < 0.001$ ,  $n = 3$  experiments. e Representative images of 3D spheroid BME cell invasion assays using HS683 & U87 cells with the indicated plasmid. Quantification of 3D spheroid BME cell invasion assays is shown. \*\*\* $p < 0.001$ ,  $n = 3$  experiments Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30728039>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Feng S, Cai X, Li Y et al. Tripartite motif-containing 14 (TRIM14) promotes epithelial-mesenchymal transition via ZEB2 in glioblastoma cells *J. Exp. Clin. Cancer Res.* 2019-02-06 [PMID: 30728039]

Kinouchi A, Jubashi T, Tatsuno R et al. Roles of ZEB1 and ZEB2 in E-cadherin expression and cell aggressiveness in head and neck cancer. *Genes to cells : devoted to molecular & cellular mechanisms* 2024-10-03 [PMID: 39362647]

María Lasierra Losada, Melissa Pauler, Niels Vandamme, Steven Goossens, Geert Berx, Moritz Leppkes, Harald Schuhwerk, Simone Brabletz, Thomas Brabletz, Marc P. Stemmler Pancreas morphogenesis and homeostasis depends on tightly regulated Zeb1 levels in epithelial cells *Cell Death Discovery* 2021-06-11 [PMID: 34112759]

Stephen T Higgins, Tyler G Erath, Michael DeSarno, Derek D Reed, Diann E Gaalema, Stacey C Sigmon, Sarah H Heil, Jennifer W Tidey Leveraging the cigarette purchase task to understand relationships between cumulative vulnerabilities, the relative reinforcing effects of smoking, and response to reduced nicotine content cigarettes. *Preventive medicine* 2022-12-06 [PMID: 35995102]

De Angelis ML, Francescangeli F, Nicolazzo C et al. An Orthotopic Patient-Derived Xenograft (PDX) Model Allows the Analysis of Metastasis-Associated Features in Colorectal Cancer *Frontiers in Oncology* 2022-06-28 [PMID: 35837106] (Immunohistochemistry)

Krebs AM, Mitschke J, Lasierra Losada M et al. The EMT-activator Zeb1 is a key factor for cell plasticity and promotes metastasis in pancreatic cancer *Nature Cell Biology* 2017-05-01 [PMID: 28414315]

Perez-Quintero L, Martinez-Cordoba Z, Carli C et al. Combined inhibition of homologous immunotherapeutic targets PTPN1 and PTPN2 is synergistic in enhancing CD8 T cell effector functions *bioRxiv* 2023-04-19 (Western Blot)

Park SH, Yoon SJ, Choi S et al. Particulate matter promotes cancer metastasis through increased HBEGF expression in macrophages *Experimental & molecular medicine* 2022-11-09 [PMID: 36352257] (WB, Human)

Ichikawa MK, Endo K, Itoh Y et al. Ets family proteins regulate the EMT transcription factors Snail and ZEB in cancer cells *FEBS open bio* 2022-04-22 [PMID: 35451213] (WB, Human)

Lohraseb I, McCarthy P, Secker G et al. Global ubiquitinome profiling identifies NEDD4 as a regulator of Profilin 1 and actin remodelling in neural crest cells *Nature communications* 2022-04-19 [PMID: 35440627] (WB)

Wang J, Farkas C, Benyoucef A et al. Interplay between the EMT transcription factors ZEB1 and ZEB2 regulates hematopoietic stem and progenitor cell differentiation and hematopoietic lineage fidelity *PLoS biology* 2021-09-22 [PMID: 34550965] (WB, Mouse)

Osada A H, Endo K et al. Addiction of mesenchymal phenotypes on the FGF/FGFR axis in oral squamous cell carcinoma cells. *PLoS One* 2019-05-11 [PMID: 31682640] (WB, Human)

More publications at <http://www.novusbio.com/NBP1-82991>





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NBP1-82991PEP	ZEB2 Recombinant Protein Antigen
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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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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