BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-Smad Interacting Protein 1/ZEB2 Antibody Picoband®

Catalog Number: PA1959

About ZEB2

ZEB2 (Zinc finger E-box-binding homeobox2), also known as SIP1or ZINC FINGER HOMEOBOX 1B (ZFHX1B), is a protein that in humans is encoded by the ZEB2 gene. The ZEB2 gene is a member of the ZEB1/Drosophila Zfh1 family of 2-handed zinc finger/homeodomain proteins and functions as a DNA-binding transcriptional repressor that interacts with activated SMADs, the transducers of TGF-beta signaling, and interacts with the nucleosome remodeling and histone deacetylation (NURD) complex. By radiation hybrid analysis, Nagase et al. (1998) mapped the ZEB2 gene to chromosome 2. Wakamatsu et al. (2001) mapped the ZEB2 gene to chromosome 2q22. Vandewalle et al. (2005) showed that expression of mouse Sip1 in human epithelial cells caused a morphologic change from an epithelial to a mesenchymal phenotype. Expression of SNAI1 in epithelial cells triggers an epithelial-mesenchyme transition. Beltran et al. (2008) showed that synthesis of ZEB2 was upregulated following SNAI1 expression in human cell lines.

Overview

Product Name	Anti-Smad Interacting Protein 1/ZEB2 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Smad Interacting Protein 1/ZEB2 Antibody catalog # PA1959. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.01mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	O60315

Technical Details

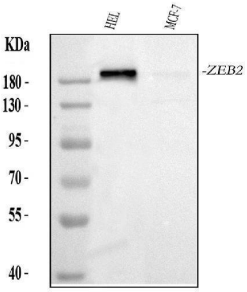
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human ZEB2, identical to the related rat and mouse sequences.

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

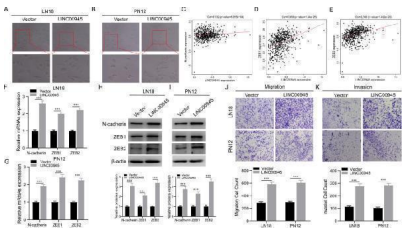
Recommended Detection Systems	Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB, supported by SA1022 in IHC(P).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

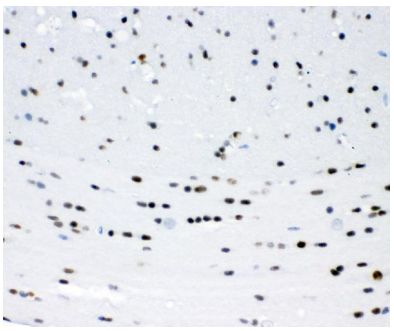
Anti-Smad Interacting Protein 1/ZEB2 Antibody Picoband® (PA1959) Images



Western blot analysis of ZEB2 using anti-ZEB2 antibody (PA1959). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human HEL whole cell lysates, Lane 2: human MCF-7 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ZEB2 antigen affinity purified polyclonal antibody (Catalog # PA1959) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for ZEB2 at approximately 180 kDa. The expected band size for ZEB2 is at 136 kDa.



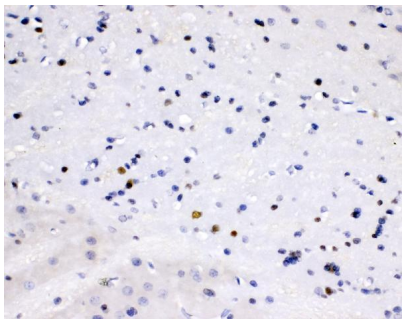
LINC00945 promotes EMT, migration, and invasion of glioma cells. A , B Morphological changes were perceived in both LN18 (A) and PN12 (B) cells after culturing for three weeks following overexpression LINC00945. C – E The expression of LINC00945 was positively correlated with the expression of N-cadherin (C), ZEB1 (D), and ZEB2 (E) in the TCGA database. F , G The mRNA expression levels of EMT-related genes (N-cadherin, ZEB1, and ZEB2) in LN18 (F) and PN12 (G) glioma cells transfected with LINC00945 and vector plasmids were examined by qRT-PCR. H , I Western blot examined the different expression levels of N-cadherin, ZEB1, and ZEB2 proteins in the LINC00945 overexpression and vector groups. J , K Transwell experiments revealed that overexpression of LINC00945 promoted LN18 and PN12 glioma cell migration (J) and invasion (K). *** p



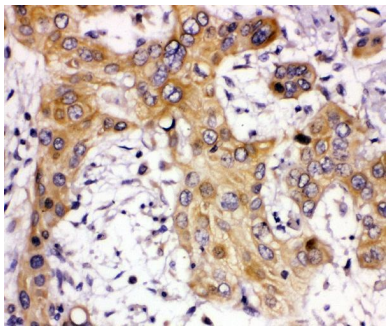
IHC analysis of ZEB2 using anti-ZEB2 antibody (PA1959). ZEB2 was detected in paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ZEB2 Antibody (PA1959) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

IHC analysis of ZEB2 using anti-ZEB2 antibody (PA1959). ZEB2 was detected in paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins.

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com



The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ZEB2 Antibody (PA1959) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of ZEB2 using anti-ZEB2 antibody (PA1959). ZEB2 was detected in paraffin-embedded section of human glioma tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ZEB2 Antibody (PA1959) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

2 Publications Citing This Product

1. PubMed ID: 10.3892/mmr.2019.10785, Placental growth factor gene silencing mitigates the epithelial‐to‐mesenchymal transition via the p38 MAPK pathway in rats with hyperoxia‐induced lung injury

2. PubMed ID: 29375381, Junfa Yang, Qingxue Liu, Shiyang Cao, Tao Xu, Xiaofeng Li, Dandan Zhou, Linxin Pan, Changyao Li, Cheng Huang, Xiaoming Meng, Lei Zhang, and Xiao Wang. Front Pharmacol. 2018 Jan 12;8:980. doi: 10.3389/fphar.2017.00980. eCollection 2017. MicroRNA-14...

Visit bosterbio.com/anti-zeb2-antibody-pa1959-boster.html to see all 2 publications.

Anti-Smad Interacting Protein 1/ZEB2 Antibody

For Research Use Only. Not for use in diagnostic procedures.