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

Anti-TPX2 Antibody Picoband®

Catalog Number: A01610-1

About TPX2

Targeting protein for Xklp2, also known as C20ORF1, is a protein that in humans is encoded by the TPX2 gene. It is mapped to chromosome 20q11.2. It was concluded that even in the presence of duplicated centrosomes, spindle formation requires the function of TPX2 to generate a stable bipolar spindle with overlapping antiparallel microtubule arrays. At the onset of mitosis, GOLGA2 interacts with importin-alpha, liberating TPX2 from importin-alpha, allowing TPX2 to activates AURKA kinase and stimulates local microtubule nucleation.

Submit a product review to Biocompare.com





Submit a review of this product to Biocompare.com to receive a $20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.

Overview

Product Name	Anti-TPX2 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-TPX2 Antibody Picoband® catalog # A01610-1. Tested in ELISA, 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	ELISA, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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	Q9ULW0

Technical Details

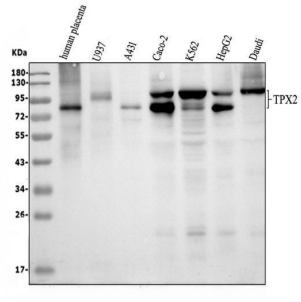
Immunogen	E. coli-derived human TPX2 recombinant protein (Position: D15-Q93).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.

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

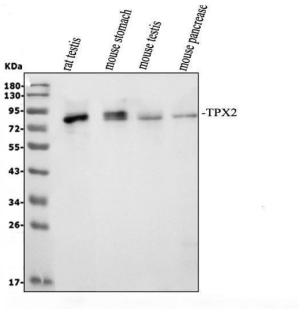
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml ELISA, 0.1-0.5ug/ml

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

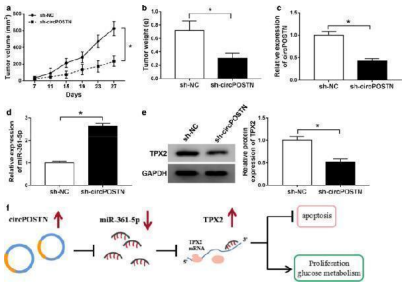
Anti-TPX2 Antibody Picoband® (A01610-1) Images



Western blot analysis of TPX2 using anti-TPX2 antibody (A01610-1). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human placenta tissue lysates, Lane 2: human U937 whole cell lysates, Lane 3: human A431 whole cell lysates, Lane 4: human Caco-2 whole cell lysates, Lane 5: human K562 whole cell lysates, Lane 6: human HepG2 whole cell lysates, Lane 7: human Daudi 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-TPX2 antigen affinity purified polyclonal antibody (A01610-1) 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 (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for TPX2 at approximately 86 kDa. The expected band size for TPX2 is at 86 kDa.

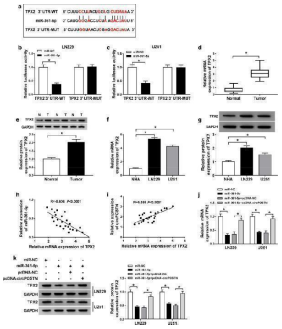


Western blot analysis of TPX2 using anti-TPX2 antibody (A01610-1). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: rat testis tissue lysates, Lane 2: mouse stomach tissue lysates, Lane 3: mouse testis tissue lysates, Lane 4: mouse pancrease tissue 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-TPX2 antigen affinity purified polyclonal antibody (A01610-1) 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 (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for TPX2 at approximately 86 kDa. The expected band size for TPX2 is at 86 kDa.

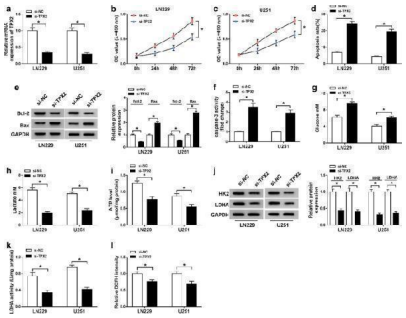


Silencing of circPOSTN repressed glioma tumor growth in vivo. a , b Tumor volume and weight were presented. c , d The expression levels of circPOSTN and miR-361-5p in dissected tumor tissues were estimated with RT-qPCR assay. e Western blot assay was executed to test protein level of TPX2 in dissected tumor tissues. f The diagrammatic representation of our conclusion was shown. * $P < 0.05$
Index in PubMed under a CC BY license. PMID: 32774168

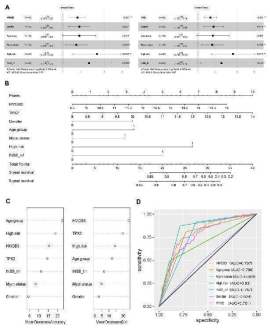
BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com



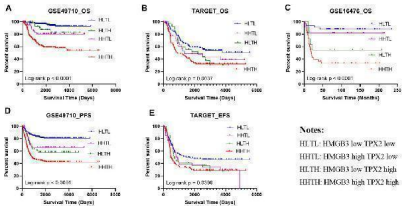
CircPOSTN regulated TPX2 expression via sponging miR-361-5p in glioma cells. a The binding sequences between miR-361-5p and TPX2, and matched mutant sites were shown. b , c Luciferase activity was determined by dual-luciferase reporter assay in LN229 and U251 cells following co-transfection with TPX2 3′UTR-WT or TPX2 3′UTR-MUT and miR-361-5p or miR-NC according to the design. d – g The mRNA and protein expression levels of TPX2 were estimated using RT-qPCR and western blot assays in glioma tissues and cells, along with controls. h , i The correlation analysis between TPX2 and miR-361-5p or circPOSTN was conducted by Pearson’s correlation analysis. j , k The RT-qPCR and western blot assays were recruited to evaluate the expression levels of TPX2 level in LN229 and U251 cells transfected with miR-NC, miR-361-5p, miR-361-5p + pcDNA-NC or miR-361-5p + pcDNA-circPOSTN. * $P < 0.05$ Index in PubMed under a CC BY license. PMID: 32774168



TPX2 regulated proliferation, apoptosis, and aerobic glycolysis in glioma cells. a – l LN229 and U251 cells were introduced with si-NC or si-TPX2. a The transfection efficiency of si-TPX2 was checked with RT-qPCR assay in LN229 and U251 cells. b , c The cell viability of LN229 and U251 cells was determined with MTT assay. d The apoptosis rate of transfected LN229 and U251 cells was represented by flow cytometry assay. e The western blot assay was used to assay the expression levels of Bcl-2 and Bax in LN229 and U251 cells. f The activity of caspase-3 was detected with a caspase-3 assay kit. g – i The glucose, lactate, and ATP production levels were shown. j The protein expression levels of HK2 and LDHA were estimated by western blot assay in LN229 and U251 cells. k , l LDHA enzyme activity and ROS content were evaluated in LN229 and U251 cells post-transfection. * $P < 0.05$ Index in PubMed under a CC BY license. PMID: 32774168

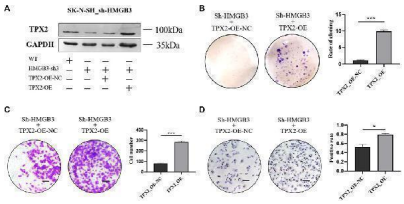


HMGB3 and TPX2 are closely associated with the survival of patients with NB in GSE49710. (A) HMGB3 and TPX2 can be independent prognostic factors for overall survival. (B–D) Nomogram, random forest, and ROC curves of HMGB3, TPX2 and clinicopathological characteristics for NB patients.Index in PubMed under a CC BY license. PMID: 34988076

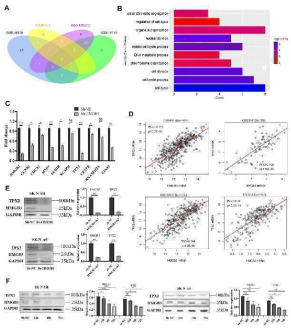


High expression of HMGB3 and TPX2 correlated to inferior NB prognosis in multiple datasets. (A–C) , Overall survival (OS) of NB patients in three independent datasets. (D, E) Progression-free survival (PFS) and Event-free survival (EFS) in NB patients.Index in PubMed under a CC BY license. PMID: 34988076

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



TPX2 overexpression can reverse the inhibition of cell proliferation caused by HMGB3 knockdown in SK-N-SH cells. (A) Protein expression was detected in sh-HMGB3 SK-N-SH cells after TPX2 over-expression by western blotting. (B–D) Colon formation, Transwell assay, and immunocytochemistry assay for sh-HMGB3 SK-N-SH cells after TPX2 over-expression. Scale bars, 50 um * $p < 0.05$, ** $p < 0.01$, and *** $p < 0.001$.Index in PubMed under a CC BY license. PMID: 34988076



HMGB3 could inhibit cell survival via TPX2 in NB cells. (A) Nine genes significantly co-expressed with HMGB3 in four datasets of NB. (B) Functional enrichment analysis of nine genes. (C) The mRNA expression of nine genes was detected by qRT-PCR in SK-N-SH cells after HMGB3 knockdown. (D) Pearson correlation of HMGB3 and TPX2 in four NB datasets. (E) Protein expression of TPX2 and HMGB3 was detected by western blotting after HMGB3 knockdown. (F) TPX2 reduction was time-dependent with HMGB3 knockdown in SK-N-SH and SK-N-AS cells. * $p < 0.05$, ** $p < 0.01$, and *** $p < 0.001$.Index in PubMed under a CC BY license. PMID: 34988076

Anti-TPX2 Antibody

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