

Anti-TGF beta Receptor I/TGFR1 Antibody Picoband™

Catalog Number: PB10101

About TGFR1

Transforming growth factor, beta receptor I is a TGF beta receptor. TGFR1 is its human gene. The protein encoded by this gene forms a heteromeric complex with type II TGF-beta receptors when bound to TGF-beta, transducing the TGF-beta signal from the cell surface to the cytoplasm. Mutations in this gene have been associated with Loeys-Dietz aortic aneurysm syndrome (LDAS). TGFR1 regulates cell cycle progression by a unique signaling mechanism that involves its binding to TGFR2 and activation of TGFR1. Both are transmembrane serine/threonine receptor kinases. The TGFR1 receptor may be inactivated in many of the cases of human tumor cells refractory to TGF-beta-mediated cell cycle arrest.

Overview

Product Name	Anti-TGF beta Receptor I/TGFR1 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-TGF beta Receptor I/TGFR1 Antibody Picoband™ catalog # PB10101. Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na ₂ HPO ₄ .
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	P36897

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human TGFR1, identical to the related mouse and rat sequences.
Predicted Reactive Species	Bovine, Chicken, Horse, Monkey, Rabbit
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat

Anti-TGF beta Receptor I/TGFBR1 Antibody Picoband™ (PB10101) Images

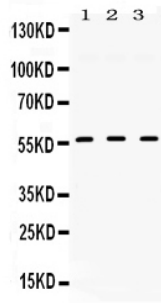


Figure 1. Western blot analysis of TGFBR1 using anti-TGFBR1 antibody (PB10101).

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: rat cardiac muscle tissue lysates,

Lane 2: mouse liver tissue lysates,

Lane 3: HELA 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-TGFBR1 antigen affinity purified polyclonal antibody (Catalog # PB10101) 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 TGFBR1 at approximately 56 kDa. The expected band size for TGFBR1 is at 56 kDa.

3 Publications Citing This Product

1. PubMed ID: 11780431, Effects of AT1 receptor antagonist, losartan, on rat hepatic fibrosis induced by CCl4
2. PubMed ID: 26279755, Different localization and expression of protein kinase C-beta in kidney cortex of diabetic nephropathy mice and its role in telmisartan treatment
3. PubMed ID: 21464546, Effects of interferon-alpha on expression of hepatic stellate cell and transforming growth factor- β 1 and β -smooth muscle actin in rats with hepatic fibrosis

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