

Anti-TIE2/TEK Antibody Picoband™

Catalog Number: A01274-1

About TEK

TIE2, also known as TEK tyrosine kinase, is mapped to 9p21.2. This gene encodes a receptor that belongs to the protein tyrosine kinase Tie2 family. The encoded protein possesses a unique extracellular region that contains two immunoglobulin-like domains, three epidermal growth factor (EGF)-like domains and three fibronectin type III repeats. The ligand angiopoietin-1 binds to this receptor and mediates a signaling pathway that functions in embryonic vascular development. Immunoblotting showed that TIE2 expression was increased by thyroid-stimulating hormone and agents that increased intracellular cAMP. HSCs expressing the receptor tyrosine kinase TIE2 are quiescent and antiapoptotic and comprise a side population of HSCs that adhere to osteoblasts in the bone marrow niche.

Overview

Product Name	Anti-TIE2/TEK Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-TIE2/TEK Antibody Picoband™ catalog # A01274-1. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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	Q02763

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence of human TIE2/TEK (EALMNQHQPLeVtQDVtREWAKKVVWK).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for 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 µg/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used Western blot, 0.1-0.5μg/ml Immunohistochemistry (Paraffin-embedded Section), 0.5-1μg/ml</p> <p>For protocols, please visit https://www.bosterbio.com/protocol-and-troubleshooting/</p>

Anti-TIE2/TEK Antibody Picoband™ (A01274-1) Images

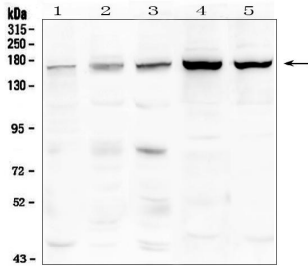


Figure 1. Western blot analysis of TEK using anti-TEK antibody (A01274-1).

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 50ug of sample under reducing conditions.

Lane 1: human placenta tissue lysates,

Lane 2: human Caco-2 whole cell lysates,

Lane 3: human Hela whole cell lysates,

Lane 4: rat liver tissue lysates,

Lane 5: mouse liver tissue lysates.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-TEK antigen affinity purified polyclonal antibody (Catalog # A01274-1) 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 at a dilution of 1:10000 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 TEK at approximately 160KD. The expected band size for TEK is at 126KD.

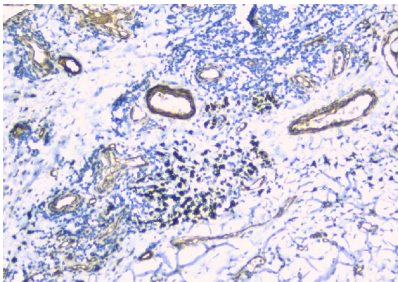


Figure 2. IHC analysis of TEK using anti-TEK antibody (A01274-1).

TEK was detected in paraffin-embedded section of human lung cancer 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-TEK Antibody (A01274-1) 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 Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

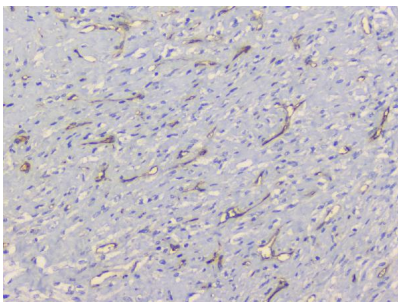


Figure 3. IHC analysis of TEK using anti-TEK antibody (A01274-1).

TEK was detected in paraffin-embedded section of human mammary cancer 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-TEK Antibody (A01274-1) 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 Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

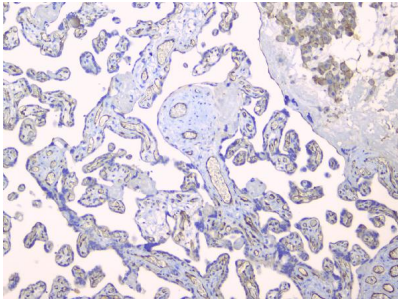


Figure 4. IHC analysis of TEK using anti-TEK antibody (A01274-1).

TEK was detected in paraffin-embedded section of human placenta 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-TEK Antibody (A01274-1) 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 Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

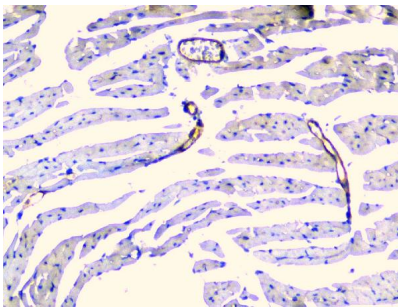


Figure 5. IHC analysis of TEK using anti-TEK antibody (A01274-1).

TEK was detected in paraffin-embedded section of mouse heart 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-TEK Antibody (A01274-1) 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 Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

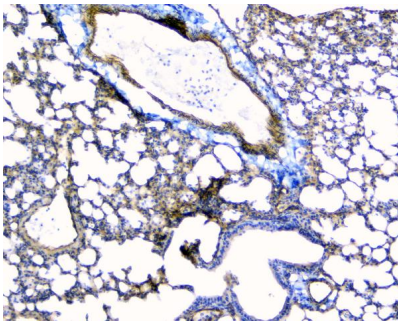


Figure 6. IHC analysis of TEK using anti-TEK antibody (A01274-1).

TEK was detected in paraffin-embedded section of mouse lung 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-TEK Antibody (A01274-1) 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 Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

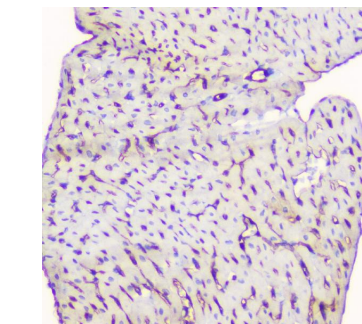


Figure 7. IHC analysis of TEK using anti-TEK antibody (A01274-1).

TEK was detected in paraffin-embedded section of rat heart 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-TEK Antibody (A01274-1) 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 Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

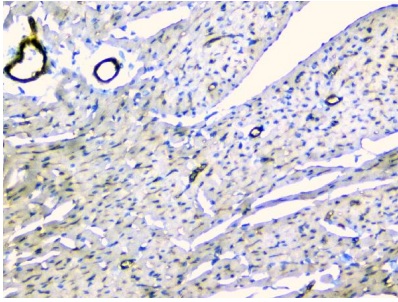


Figure 8. IHC analysis of TEK using anti-TEK antibody (A01274-1).

TEK was detected in paraffin-embedded section of rat heart 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-TEK Antibody (A01274-1) 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 Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

4 Publications Citing This Product

1. PubMed ID: 10.1620/tjem.224.221, Exercise Improves Recovery after Ischemic Brain Injury by Inducing the Expression of Angiopoietin-1 and Tie-2 in Rats
2. PubMed ID: 10.1016/j.transproceed.2008.07.121, Expressions of Angiopoietin-1, Angiopoietin-2, and Tie2 and Their Roles in Rat Renal Allografts With Chronic Allograft Nephropathy
3. PubMed ID: 10.1016/j.transproceed.2008.08.047, Rapamycin and Cyclosporine Have Different Effects on Expression of ang-1 and ang-2 and Tie2 in Rat Renal Allograft With Chronic Allograft Nephropathy

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