

## Anti-CD105/Eng Antibody Picoband™

Catalog Number: A02997-2

### About Eng

Endoglin (Osler-Rendu-Weber syndrome 1), CD105, is a type I membrane glycoprotein located on cell surfaces and is a part of the TGF beta receptor complex. Its gene is mapped to human chromosome 8. The protein consists of a homodimer of 180 kDA with disulfide links. It has been found on endothelial cells, activated macrophages, fibroblasts and smooth muscle cells. Endoglin has a role in the development of the cardiovascular system and in vascular remodeling and has been found to be elevated in pregnant women who subsequently develop preeclampsia.

### Overview

Product Name	Anti-CD105/Eng Antibody Picoband™
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-CD105/Eng Antibody Picoband™ catalog # A02997-2. Tested in ELISA, IHC, WB applications. This antibody reacts with Mouse, Rat.
Application	ELISA, IHC, 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	Eng: Q63961

### Technical Details

Immunogen	E. coli-derived mouse CD105 recombinant protein (Position: E27-L226).
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 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

Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml

Direct ELISA, 0.1-0.5ug/ml

## Anti-CD105/Eng Antibody Picoband™ (A02997-2) Images

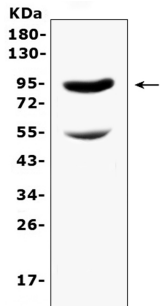


Figure 1. Western blot analysis of CD105 using anti-CD105 antibody (A02997-2).

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: mouse lung 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-CD105 antigen affinity purified polyclonal antibody (Catalog # A02997-2) at 0.5 ug/mL overnight at 4 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 CD105 at approximately 95-105KD. The expected band size for CD105 is at 71KD.

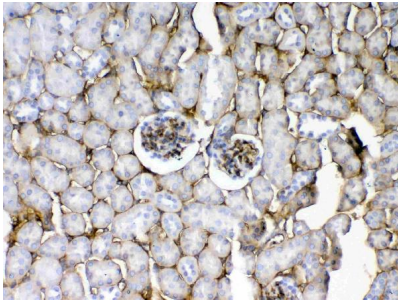


Figure 2. IHC analysis of CD105 using anti-CD105 antibody (A02997-2).

CD105 was detected in paraffin-embedded section of mouse kidney 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-CD105 Antibody (A02997-2) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

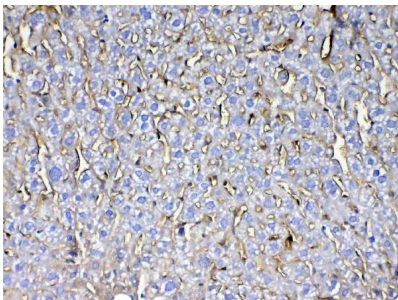
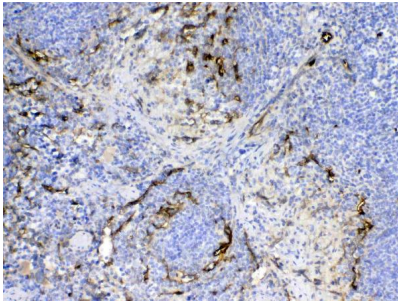


Figure 3. IHC analysis of CD105 using anti-CD105 antibody (A02997-2).

CD105 was detected in paraffin-embedded section of mouse liver 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-CD105 Antibody (A02997-2) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

Figure 4. IHC analysis of CD105 using anti-CD105 antibody (A02997-2).

CD105 was detected in paraffin-embedded section of mouse



spleen 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-CD105 Antibody (A02997-2) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

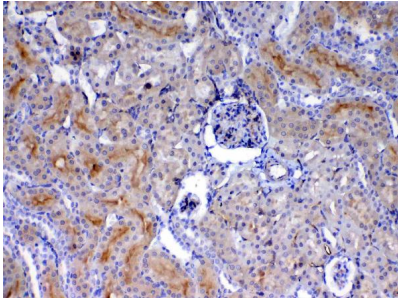


Figure 5. IHC analysis of CD105 using anti-CD105 antibody (A02997-2).

CD105 was detected in paraffin-embedded section of rat kidney 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-CD105 Antibody (A02997-2) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

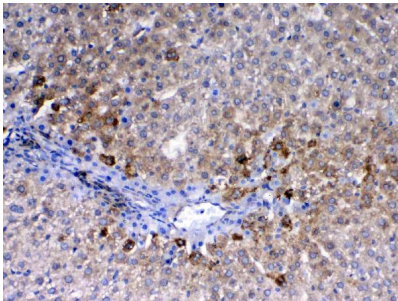


Figure 6. IHC analysis of CD105 using anti-CD105 antibody (A02997-2).

CD105 was detected in paraffin-embedded section of rat liver 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-CD105 Antibody (A02997-2) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

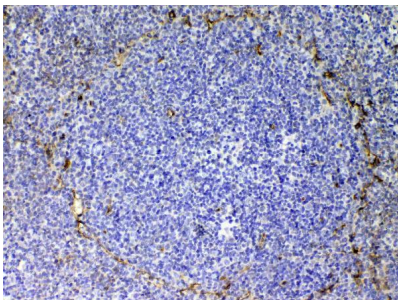


Figure 7. IHC analysis of CD105 using anti-CD105 antibody (A02997-2).

CD105 was detected in paraffin-embedded section of rat spleen 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-CD105 Antibody (A02997-2) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

## 10 Publications Citing This Product

1. PubMed ID: , Engineering Stem Cell Derived Biomimetic Vesicles for Versatility and Effective Targeted Delivery

2. PubMed ID: -, Wu,H.,Jiang,X.,Li,Y.,Zhou,Y.,Zhang,T.,Zhi,P.,Gao,J.,Engineering Stem Cell Derived Biomimetic Vesicles for Versatility and Effective Targeted Delivery.Adv. Funct.Mater.2020, 30, 2006169.https://doi.org/10.1002/adfm.202006169

3. PubMed ID: 28147322, VEGF promotes cartilage angiogenesis by phospho-ERK1/2 activation of Dll4 signaling in temporomandibular joint osteoarthritis caused by chronic sleep %u2026

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