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antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
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Anti-CD147/BSG Antibody Picoband™

Catalog Number: PB9247

About BSG

Emmprin, extracellular matrix metalloproteinase inducer, also known as Emmprin (BSG) or cluster of differentiation 147 (CD147) is a protein that in humans is encoded by the Emmprin gene. The human BSG gene is mapped to 19p13.3. This protein is a determinant for the Ok blood group system. BSG has been shown to be an essential receptor on red blood cells for the malaria parasite. It is a member of the immunoglobulin superfamily, with a structure related to the putative primordial form of the family. As members of the immunoglobulin superfamily, it plays fundamental roles in intercellular recognition involved in various immunologic phenomena, differentiation, and development. BSG is thought also to play a role in intercellular recognition. It also regulates several distinct functions, such as spermatogenesis, expression of the monocarboxylate transporter and the responsiveness of lymphocytes. BSG is a type I integral membrane receptor that has many ligands, including the cyclophilin (CyP) proteins Cyp-A and CyP-B and certain integrins. It is expressed by many cell types, including epithelial cells, endothelial cells and leukocytes.

Overview

Product Name	Anti-CD147/BSG Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-CD147/BSG Antibody Picoband™ catalog # PB9247. Tested in Flow Cytometry, IHC, ICC, WB applications. This antibody reacts with Human.
Application	Flow Cytometry, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 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	P35613

Technical Details

Immunogen	E.coli-derived human CD147 recombinant protein (Position: E53-S385). Human CD147 shares 64% and 65% amino acid (aa) sequence identity with mouse and rat CD147, respectively.
Predicted Reactive Species	Bovine, Canine, Chicken, Horse, Monkey, Rabbit
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(F) and ICC.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG

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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: Immunohistochemistry (Frozen Section), 0.5-1ug/ml Immunocytochemistry, 0.5-1ug/ml Western blot, 0.1-0.5ug/ml Flow Cytometry, 1-3ug/1x10^6cells

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Anti-CD147/BSG Antibody Picoband™ (PB9247) Images

Figure 1. Western blot analysis of CD147 using anti-CD147 antibody (PB9247). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.
Lane 1: Recombinant Human CD147 Protein 0.5ng
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-CD147 antigen affinity purified polyclonal antibody (Catalog # PB9247) 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 CD147 at approximately 39KD. The expected band size for CD147 is at 39KD.

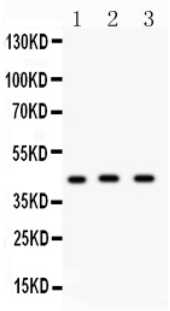

Figure 2. Western blot analysis of CD147 using anti-CD147 antibody (PB9247). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: Human Placenta Tissue Lysate
Lane 2: JURKAT Whole Cell Lysate
Lane 3: U20S Whole Cell Lysate
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-CD147 antigen affinity purified polyclonal antibody (Catalog # PB9247) 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 CD147 at approximately 42KD. The expected band size for CD147 is at 42KD.

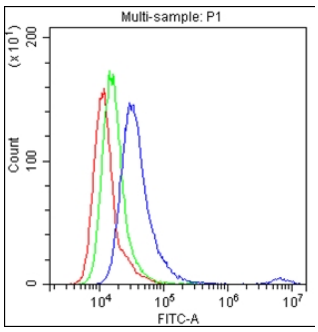

Figure 3. Flow Cytometry analysis of Hela cells using anti-Emmprin antibody (PB9247).
Overlay histogram showing Hela cells stained with PB9247 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Emmprin Antibody (PB9247,1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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4 Publications Citing This Product

1. PubMed ID: 23123425, Ying Hz, Liu Yh, Yu B, Wang Zy, Zang Jn, Yu Ch. Food Chem Toxicol. 2013 Feb;52:53-60. Doi: 10.1016/J.Fct.2012.10.030. Epub 2012 Nov 2. Dietary Quercetin Ameliorates Nonalcoholic Steatohepatitis Induced By A High-Fat Diet In Gerbils.

2. PubMed ID: 28927140, iTRAQ-coupled 2D LC/MS-MS analysis of CXCR7-transfected papillary thyroid carcinoma cells: A new insight into CXCR7 regulation of papillary thyroid carcinoma progression and identification of potential biomarkers

3. PubMed ID: 28962206, Overexpression of CD147 is associated with poor prognosis, tumor cell migration and ERK signaling pathway activation in hepatocellular carcinoma

Visit bosterbio.com/anti-cd147-picoband-trade-antibody-pb9247-boster.html to see all 4 publications.