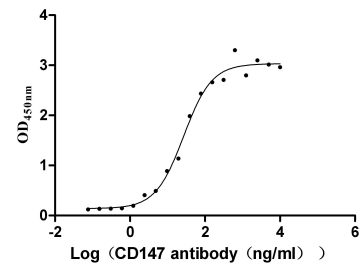
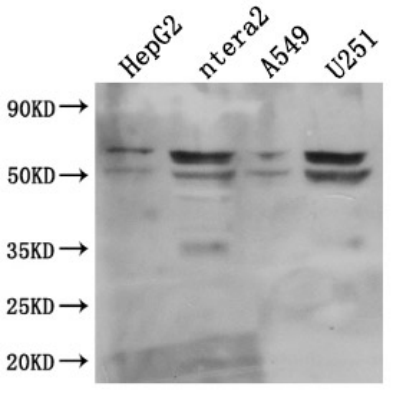
CD147 Recombinant Monoclonal Antibody

Product Code	CSB-RA002831A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P35613
Immunogen	Recombinant Human CD147 protein
Species Reactivity	Human
Tested Applications	ELISA, WB, IHC, IF, FC; Recommended dilution: WB:1:500-1:2000, IHC:1:50-1:200, IF:1:50-1:200, FC:1:50-1:200
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol, 0.01M PBS, PH 7.4
Purification Method	Affinity-chromatography
Isotype	mIgG2a
Clonality	Monoclonal
Alias	5A11 antigen antibody; 5F7 antibody; BASI_HUMAN antibody; Basigin (Ok blood group) antibody; Basigin antibody; Blood brain barrier HT7 antigen antibody; Bsg antibody; CD 147 antibody; CD147 antibody; CD147 antigen antibody; Collagenase stimulatory factor antibody; EMMPRIN antibody; Extracellular matrix metalloproteinase inducer antibody; Leukocyte activation antigen M6 antibody; M 6 antibody; M6 antibody; M6 leukocyte activation antigen antibody; Neurothelin antibody; OK antibody; OK blood group antibody; OK blood group antigen antibody; TCSF antibody; Tumor cell derived collagenase stimulatory factor antibody; Tumor cell-derived collagenase stimulatory factor antibody
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Gene Names	BSG
Clone No.	11F3

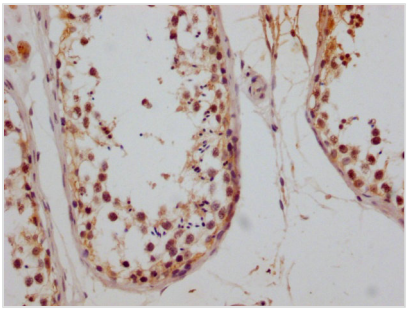
Image



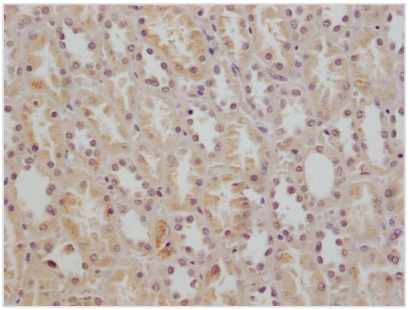
The Binding Activity of CD147 with Anti-CD147 recombinant Antibody
Activity: Measured by its binding ability in a functional ELISA. Immobilized Human CD147 (CSB-MP002831HU1) at 2 μg/ml can bind Anti-CD147 recombinant Antibody, the EC_{50} is 21.95-33.12 ng/ml.



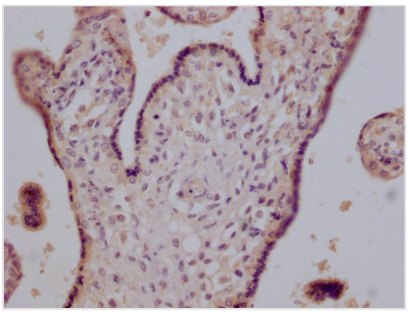
Western Blot
Positive WB detected in: HepG2 whole cell lysate, ntera2 whole cell lysate, A549 whole cell lysate, U251 whole cell lysate
All lanes: CD147 antibody at 1:1000
Secondary
Goat polyclonal to mouse IgG at 1/50000 dilution
Predicted band size: 42, 29, 23, 19 KDa
Observed band size: 35, 50-60 KDa



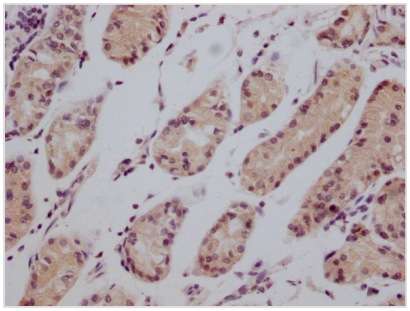
IHC image of CSB-RA002831A0HU diluted at 1:200 and staining in paraffin-embedded human testis tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-mouse polymer IgG labeled by HRP and visualized using 0.05% DAB.



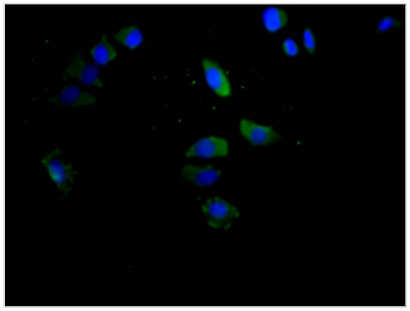
IHC image of CSB-RA002831A0HU diluted at 1:200 and staining in paraffin-embedded human kidney tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-mouse polymer IgG labeled by HRP and visualized using 0.05% DAB.



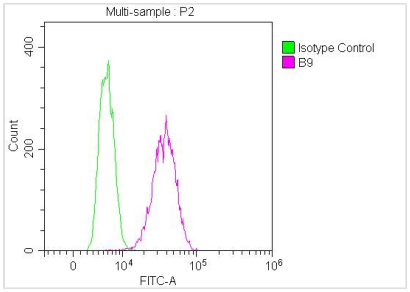
IHC image of CSB-RA002831A0HU diluted at 1:200 and staining in paraffin-embedded human placenta tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-mouse polymer IgG labeled by HRP and visualized using 0.05% DAB.



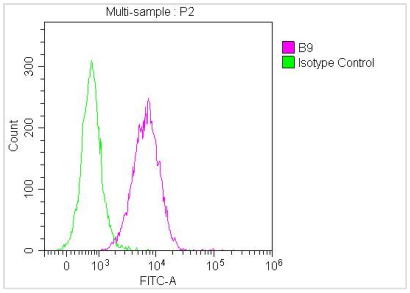
IHC image of CSB-RA002831A0HU diluted at 1:200 and staining in paraffin-embedded human stomach tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-mouse polymer IgG labeled by HRP and visualized using 0.05% DAB.



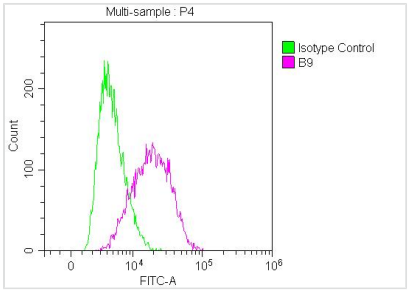
Immunofluorescence staining of Hela cells with CSB-RA002831A0HU at 1:150, counter-stained with DAPI. The cells were fixed in 4% formaldehyde and blocked in 10% normal Goat Serum. The cells were incubated with the antibody overnight at 4°C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Mouse IgG (H+L).



Overlay Peak curve showing Hela cells stained with CSB-RA002831A0HU (red line) with 1 µg/well (10 µg/mL, 100 µL/well). Then 10% normal goat serum was Incubated to block non-specific protein-protein interactions followed by the antibody (1µg/1*10^6cells) for 45 min at 4°C. The secondary antibody used was FITC-conjugated Goat Anti-Mouse IgG(H+L) at 1/200 dilution for 35 min at 4°C. Isotype control antibody (green line) was mouse IgG1 (1µg/1*10^6cells) used under the same conditions.Acquisition of >10,000 events was per formed.



Overlay Peak curve showing Jurkat cells stained with CSB-RA002831A0HU (red line) with 1 µg/well (10 µg/mL, 100 µL/well). Then 10% normal goat serum was Incubated to block non-specific protein-protein interactions followed by the antibody (1µg/1*10^6cells) for 45 min at 4°C. The secondary antibody used was FITC-conjugated Goat Anti-Mouse IgG(H+L) at 1/200 dilution for 35 min at 4°C. Isotype control antibody (green line) was mouse IgG1 (1µg/1*10^6cells) used under the same conditions.Acquisition of >10,000 events was per formed.



Overlay Peak curve showing HepG2 cells surface stained with CSB-RA002831A0HU (red line) with 1 µg/well (10 µg/mL, 100 µL/well). Then 10% normal goat serum was Incubated to block non-specific protein-protein interactions followed by the antibody (1µg/1*10^6cells) for 45 min at 4°C. The secondary antibody used was FITC-conjugated Goat Anti-Mouse IgG(H+L) at 1/200 dilution for 35 min at 4°C. Isotype control antibody (green line) was mouse IgG1 (1µg/1*10^6cells) used under the same conditions.Acquisition of >10,000 events was per formed.

Description

The process for generating the CD147 recombinant monoclonal antibody typically begins with the incorporation of the CD147 antibody-encoding gene into expression vectors. These vectors are then transferred into host cells via polyethyleneimine-mediated transfection methods. The host cells containing these vectors are cultured to produce and excrete the antibodies. After purification through affinity chromatography, the antibodies undergo evaluations involving ELISA, WB, IHC, IF, and FC assays, demonstrating their specific binding to the human CD147 protein. In the functional ELISA, immobilized human CD147 protein (CSB-MP002831HU1) at 2 µg/ml can bind this CD147 recombinant monoclonal antibody, with the $ECEC_{50}$ of 21.95-33.12 ng/ml.

CD147 is a multifunctional protein involved in cell adhesion, inflammation, extracellular matrix remodeling, angiogenesis, and various physiological and pathological processes. Its diverse roles in cell interactions, immune responses, and tissue remodeling make it a subject of interest in both basic research and clinical applications.