Data Sheet (Cat.No.TMAH-00171)

TargetMol

Anti-CD147 Antibody (2H864)

Product Details

Ig Type:	Mouse IgG2a
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	2H864
Purification:	Affinity-chromatography

Applications

Verified Activity:

1. The Binding Activity of CD147 with Anti-CD147 recombinant Antibody
Activity: Measured by its binding ability in a functional ELISA. Immobilized Human CD147 at 2 μg/ml can bind Anti-CD147 recombinant Antibody, the EC50 is 21.95-33.12 ng/ml.
2. 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
3. IHC image of TMAH-00171 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.
4. IHC image of TMAH-00171 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.
5. IHC image of TMAH-00171 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.
6. IHC image of TMAH-00171 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.
7. Immunofluorescence staining of Hela cells with TMAH-00171 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).
8. Overlay Peak curve showing Hela cells stained with TMAH-00171 (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*10^6 cells) 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*10^6 cells) used under the same conditions.Acquisition of >10,000 events was performed.
9. Overlay Peak curve showing Jurkat cells stained with TMAH-00171 (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*10^6 cells) 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*10^6 cells) used under the same conditions.Acquisition of >10,000 events was performed.
10. Overlay Peak curve showing HepG2 cells surface stained with TMAH-00171 (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*10^6 cells) 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*10^6 cells) used under the same conditions.Acquisition of >10,000 events was performed.

Application:	ELISA,FCM,IF,IHC,WB
Recommended	WB:1:500-1:2000; IHC:1:50-1:200; IF:1:50-1:200; FCM:1:50-1:200.

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: Human CD147 Protein
Antigen Species:	Human
Gene ID:	682
Uniprot ID:	P35613
Synonyms:	basigin (Ok blood group);M6;EMMPRIN;TCSF;OK;5F7;CD147
Biology Area:	Cancer

Research Background

Essential for normal retinal maturation and development. Acts as a retinal cell surface receptor for NXNL1 and plays an important role in NXNL1-mediated survival of retinal cone photoreceptors. In association with glucose transporter SLC16A1/GLUT1 and NXNL1, promotes retinal cone survival by enhancing aerobic glycolysis and accelerating the entry of glucose into photoreceptors. May act as a potent stimulator of IL6 secretion in multiple cell lines that include monocytes. Signaling receptor for cyclophilins, essential for PPIA/CYPA and PPIB/CYPB-dependent signaling related to chemotaxis and adhesion of immune cells. Plays an important role in targeting monocarboxylate transporters SLC16A1/GLUT1, SLC16A11 and SLC16A12 to the plasma membrane. Acts as a coreceptor for vascular endothelial growth factor receptor 2 (KDR/VEGFR2) in endothelial cells enhancing its VEGFA-mediated activation and downstream signaling. Promotes angiogenesis through EPAS1/HIF2A-mediated up-regulation of VEGFA (isoform VEGF-165 and VEGF-121) and KDR/VEGFR2 in endothelial cells. Plays a key role in regulating tumor growth, invasion, metastasis and neoangiogenesis by stimulating the production and release of extracellular matrix metalloproteinases and KDR/VEGFR2 by both tumor cells and stromal cells (fibroblasts and

endothelial cells). (Microbial infection) Erythrocyte receptor for P.falciparum RH5 which is essential for erythrocyte invasion by the merozoite stage of P.falciparum isolates 3D7 and Dd2. (Microbial infection) Erythrocyte receptor for P.falciparum RH5 which is essential for erythrocyte invasion by the merozoite stage of P.falciparum isolates 3D7, Dd2, 7G8 and HB3. Binding of P.falciparum RH5 results in BSG dimerization which triggers an increase in intracellular Ca(2+) in the erythrocyte. This essential step leads to a rearrangement of the erythrocyte cytoskeleton required for the merozoite invasion. (Microbial infection) Can facilitate human SARS coronavirus (SARS-CoV-1) infection via its interaction with virus-associated PPIA/CYPA. (Microbial infection) Can facilitate HIV-1 infection via its interaction with virus-associated PPIA/CYPA. (Microbial infection) First described as a receptor for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), it is not required for SARS-CoV-2 infection. (Microbial infection) Acts as a receptor for measles virus. (Microbial infection) Promotes entry of pentamer-expressing human cytomegalovirus (HCMV) into epithelial and endothelial cells.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481