# Active Cluster Of Differentiation 147 (CD147)

*Catalog#:PER12696*

## 概述（Summary）

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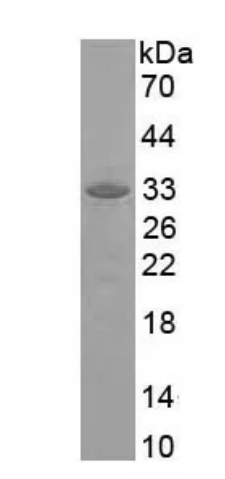
| **别称（Alternative Names）** | EMMPRIN; BSG; 5F7; M6; OK; TCSF; Basigin(Ok Blood Group); Collagenase stimulatory factor; OK blood group antigen; Tumor cell-derived collagenase stimulatory factor |
| **纯度（Purity）** | Greater than 95% as determined by reducing SDS-PAGE. |
| **内毒素（Endotoxin level）** | Please contact with the lab for this information |
| **蛋白构建（Construction）** | 【Glu59-Val321】 |
| **Accession #** | P26453 |
| **表达宿主（Host）** | E.coli |
| **种属（Species）** | Rattus norvegicus (Rat) |
| **预测分子量（Predicted MW）** | 32.6 kDa |
| **制剂（Form）** | Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300. |
| **运输方式（Shipping）** | The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below. |
| **稳定性&储存（Stability &Storage）** | 12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles. |
| **复溶（Reconstitution）** | Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex. |
| **背景介绍（References）** | 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.; 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 the monocarboxylate transporters SLC16A1/GLUT1 and SLC16A3 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 and KDR/VEGFR2 in endothelial cells. Plays an important role in spermatogenesis; mediates interactions between germ cells and Sertoli cell and is essential for the development/differentiation of germ cells to round spermatids.

## 电泳图（SDS-PAGE image）




Greater than 95% as determined by reducing SDS-PAGE.

## 活性图（Bioactivity image）

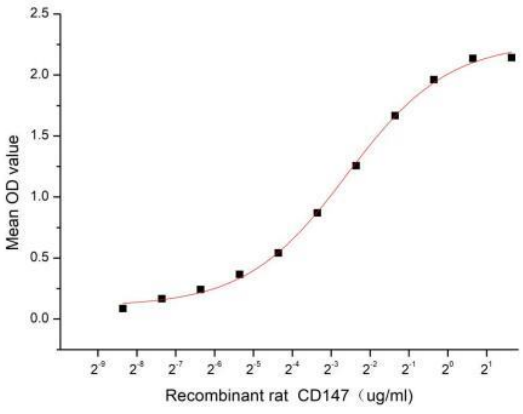



**Figure 1. The binding activity of recombinant rat CD147 and recombinant human ITGb1**

Extracellular matrix metalloproteinase (MMP) inducer (EMMPRIN), also known as basigin and CD147, is a 44 66 kDa, variably N and O glycosylated, type I transmembrane protein that belongs to the immunoglobulin superfamily. EMMPRIN is 269 amino acids (aa) in length and contains a 24 aa signal sequence, a 183 aa extracellular domain (ECD), a 21 aa transmembrane (TM) segment and a 41 aa cytoplasmic tail. The ECD contains one C2 type and one V type Ig like domain. EMMPRIN is expressed in

areas of tissue remodeling, including endometrium, placenta, skin, and regions undergoing angiogenesis. It is also expressed on cells with high metabolic activity, such as lymphoblasts, macrophages and particularly tumor cells. A functional ELISA assay was conducted to detect the interaction of recombinant rat EMMPRIN/CD147 and recombinant human ITGb1. Briefly, CD147 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to Spike glycoprotein-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-CD147 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 µL stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant rat CD147 and recombinant human ITGb1 was shown in Figure 1, the EC50 for this effect is 0.166 ug/mL.

## 注意事项（Note）

For Research Use Only , Not for Diagnostic Use.