

## EMMPRIN/CD147 Protein, Human, Recombinant

### General Information

Synonyms:	CD147;TCSF;5F7;Basigin;OK;M6;basigin (Ok blood group);EMMPRIN
Protein Construction:	The mature form of human CD147 (NP_940991.1) extracellular domain (Met 1-His 205) with quinary-aa peptide (DDDDK) at the C-terminus was expressed and purified. Predicted N terminal: Ala 22
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P35613-2
Molecular Weight:	20.7 kDa (predicted); 35-38 kDa (reducing condition, due to glycosylation)

### QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing 50 mM Tris, 100 mM NaCl, pH 8.0. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

### Preparation and Storage

**Reconstitution:**  
A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

**Stability & Storage:**

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

**Shipping:**

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

CD147/EMMPRIN (Extracellular Matrix Metalloproteinase Inducer), also known as Basigin (BSG), is a transmembrane glycoprotein with different forms resulted from different modes of glycosylation and N-terminal sequence variants. It is a member of the immunoglobulin superfamily with homology to both the immunoglobulin V domain and MHC class II antigen beta-chain. This protein play important roles in variety of events including

spermatogenesis, embryo implantation, neural network formation. CD147 induces the production and release of matrix metalloproteinases (MMP) in the surrounding mesenchymal cells and tumor cells, and thereby promotes invasion, metastasis, growth and survival of malignant cells. Furthermore, CD147 also serves as a receptor for extracellular cyclophilin and its association with integrins might be important in signal transduction. Recently, CD147 displays increased expression in many cancers, and it has been previously demonstrated to participate in cancer metastasis and progression. Thus, CD147 and its antibody are used as an effective treatment for malignant cancers.

### Reference

- Tang Y, et al. (2004) Tumor-stroma interaction: positive feedback regulation of extracellular matrix metalloproteinase inducer (EMMPRIN) expression and matrix metalloproteinase-dependent generation of soluble EMMPRIN. *Mol Cancer Res.* 2(2): 73-80.
- Wilson MC, et al. (2005) Basigin (CD147) is the target for organomercurial inhibition of monocarboxylate transporter isoforms 1 and 4: the ancillary protein for the insensitive MCT2 is EMBIGIN (gp70). *J Biol Chem.* 280(29): 27213-21.
- Curtin KD, et al. (2005) Basigin (EMMPRIN/CD147) interacts with integrin to affect cellular architecture. *J Cell Sci.* 118 (Pt 12): 2649-60.
- Zhu H, et al. (2009) A novel antibody fragment targeting HAb18G/CD147 with cytotoxicity and decreased immunogenicity. *Cancer Biol Ther.* 8(11): 1035-44.
- Zhu H, et al. (2009) A novel antibody fragment targeting HAb18G/CD147 with cytotoxicity and decreased immunogenicity. *Cancer Biol Ther.* 8(11): 1035-44.
- Seizer P, et al. (2009) EMMPRIN (CD147) is a novel receptor for platelet GPVI and mediates platelet rolling via GPVI-EMMPRIN interaction. *Thromb Haemost.* 101(4): 682-6.
- Moonsom S, et al. (2010) A Competitive ELISA for Quantifying Serum CD147: Reduction of Soluble CD147 Levels in Cancer Patient Sera. *Hybridoma (Larchmt).* 29(1): 45-52.

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