



**LD Biopharma, Inc.**  
7384 Trade Street, Suite B  
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<http://www.ldbiopharma.com>

## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human CD147 Protein  
**Catalog Number:** hRP-2447  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

The protein encoded by human basigin (also named as CD147) gene is a plasma membrane protein that is important in spermatogenesis, embryo implantation, neural network formation, and tumor progression. It plays an important role in targeting the monocarboxylate transporters SLC16A1, SLC16A3, SLC16A8 and SLC16A11 to the plasma membrane. CD147 stimulates adjacent fibroblasts to produce matrix metalloproteinases (MMPS). It seems to be a receptor for oligomannosidic glycans. In vitro, CD147 promotes outgrowth of astrocytic processes.

Full-length extracellular domain of human CD147 cDNA (138 – 323aa) was constructed with codon optimization gene synthesis and expressed with a human alpha Fetal Protein N-terminal (AFP<sub>n</sub>) -His-TEV cleavage site Tag (217aa) fusion at its N-terminal. This protein is expressed in *E. coli* as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

**Gene Symbol:** CD147 (Basigin; BSG; 5F7; EMMPRIN; OK; TCSF)  
**Accession Number:** NP\_940991  
**Species:** Human  
**Size:** 25 µg / Vial  
**Composition:** 0.25 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose and DTT.  
**Storage:** In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

### Key References

Qin H, et al., *CD147-induced cell proliferation is associated with Smad4 signal inhibition*. Exp. Cell Res. 358 (2), 279-289 (2017)



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Schmidt J, et al., *EMMPRIN (CD147) is induced by C/EBPbeta and is differentially expressed in ALK+ and ALK- anaplastic large-cell lymphoma*. Lab. Invest. 97 (9), 1095-1102 (2017)

Chen J, et al., *Nuclear envelope-distributed CD147 interacts with and inhibits the transcriptional function of RING1 and promotes melanoma cell motility*. PLoS ONE 12 (8), e0183689 (2017)

Mohanta S, et al., *Cancer stem cell markers in patterning differentiation and in prognosis of oral squamous cell carcinoma* Tumour Biol. 39 (6), 1010428317703656 (2017)

## Applications

1. May be used for in vitro CD147 mediated spermatogenesis, embryo implantation, neural network formation, and tumor progression regulation study for various cells with this protein either as soluble factor or as coating matrix protein.
2. May be used for CD147 protein-protein interaction assay.
3. Potential therapeutic/diagnostic protein, which may be used as cancer stem cell target (such as anti-CD147 antibody) for various diseases.
4. As immunogen for specific antibody production.

## Quality Control

Purity: > 90% by SDS-PAGE.

## Recombinant Protein Sequence

MTLHRNEYGIASILDSYQCTAEISLADLATIFFAQFVQEQEATYKEVSKMVKDALTAIEKPTGDEQ  
SSGCLLENQLPAFLLEELCHEKEILEKYGHSDCCSQSEEGRHNCFLAHKKPTPASIPLFQVPEPVT  
SCEAYEEDRETFMNFIIYEIARRHPFLYAPTILLWAARYDKIIPSCCKAENAVECFQTKAATVT  
KELRESSGGSHHHHHGSENL~~YFQGG~~EEPGTVFTTVEDLGSKILLTCSLND~~SATEVT~~GHRWLKG  
GVVLKEDALPGQKTEFKVDSDDQWGEYSCVFLPEPMTANIQLHGPPRVKAVKSSEHINEGETA  
MLVCKSESVPVPTDWA~~YKITD~~SEDKALMNGSES~~SRFFVSSQGR~~SELHIENLNMEADPGQYRCN  
GTSSKGS~~DQAIITLRV~~SHLA