Data Sheet (Cat.No.TMPY-02257)

TargetMol

CCL14 Protein, Human, Recombinant (His)

General Information

Synonyms:	HCC-3;CKB1;SCYA14;chemokine (C-C motif) ligand 14;FLJ16015;CC-1;MCIF;NCC-2;NCC2;HCC-1(1-74);HCC-1/HCC-3;SY14;CC-3;HCC-1;SCYL2
Protein Construction:	A DNA sequence encoding the mature form of human CCL14 (Q16627-1) (Thr 20-Asn 93) was expressed, with a polyhistide tag at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	E. coli
Accession:	Q16627-1
Molecular Weight:	10.2 kDa (predicted); 12 kDa (reducing conditions)

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:	> 90 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, 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

CCL14 has an important biological role in other mammals by evolving under positive selection that has been lost in Ochotonidae (subgenera Pika and Lagotona). CC chemokine ligand 14, CCL14, is a human CC chemokine that is of recent interest because of its natural ability, upon proteolytic processing of the first eight NH2-terminal residues, to bind to and signal through the human immunodeficiency virus type-1 (HIV-1) co-receptor, CC

chemokine receptor 5 (CCR5). Embryo implantation is a complex process involving blastocyst attachment to the endometrial epithelium and subsequent trophoblast invasion of the decidua. We have previously shown that the chemokines CX3CL1 and CCL14 are abundant in endometrial vasculature, epithelial, and decidual cells at this time, and that their receptors, CX3CR1 and CCR1, are present on invading human trophoblasts. CX3CL1 and CCL14 promote trophoblast migration.

Reference

Laing KJ,et al.(2004) Chemokines. Developmental and comparative immunology. 28 (5): 443-60.
Cocchi F,et al.(1995) Identification of RANTES, MIP-1a, and MIP-1b as the major HIV-suppressive factor produced by CD8+T cells. Science. 270 (5243): 1811-5.
Hori T,et al.(2008) CCL8 is a potential molecular candidate for the diagnosis of graft-versus-host disease. Blood. 111 (8): 4403-12.
Biber K,et al.(2003) Expression of L-CCR in HEK 293 cells reveals functional responses to CCL2, CCL5, CCL7, and CCL8. Journal of Leukocyte Biology. 74 (2): 243-51.