Product Data Sheet

Product Name: CTCE-0214
Cat. No.: GC72196

Chemical Properties

Cas. No.	577782-52-6		
Formula	$C_{170}H_{254}N_{44}O_{40}$	M.Wt	3554.11
Solubility	DMSO : 100 mg/mL (28.14 mM; Need ultrasonic; Hygroscopic DMSO has a significant impact on the solubility of product, please use newly opened DMSO)	Storage	Store at -20°C, away from moisture and light

General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.
Structure	

KPVSLSYRAPFRFFGGGGLKWIQEYLEKALN-NH_2 (Lactam:Lys_{20}-Glu_{24})

Background

CTCE-0214 is a chemokine CXC receptor 4 (CXCR4) agonist, SDF-1α (stromal cell-derived factor-1α) peptide analog. CTCE-0214 shows anti-inflammatory activity, and can be used in inflammation sepsis and systemic inflammatory syndromes research.

Caution: Product has not been fully validated for medical applications. For research use only.
Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

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CTCE-0214 (0.01-0.1 ng/mL; 4 d) increases the expansion of CD34+ cells subsets [3].

CTCE-0214 (intravenous injection; 1-25 mg/kg; once) treatment inhibits Lipopolysaccharide-induced plasma TNF-α production[1].
CTCE-0214 (intraperitoneal injection and intravenous injection; 25 mg/kg; once) decreases Zymosan-induced plasma TNF-α production[1].

References:
[1]. Fan H, et al. Beneficial effect of a CXCR4 agonist in murine models of systemic inflammation. Inflammation. 2012 Feb;35(1):130-7.
[2]. Faber A, et al. The many facets of SDF-1alpha, CXCR4 agonists and antagonists on hematopoietic progenitor cells. J Biomed Biotechnol. 2007;2007(3):26065.
[3]. Li K, et al. Small peptide analogue of SDF-1alpha supports survival of cord blood CD34+ cells in synergy with other cytokines and enhances their ex vivo expansion and engraftment into nonobese diabetic/severe combined immunodeficient mice. Stem Cells. 2006 Jan;24(1):55-64.

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