

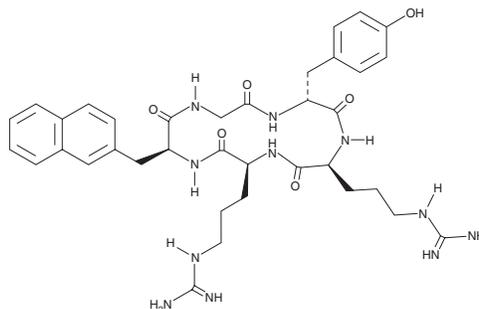
PRODUCT INFORMATION



FC 131

Item No. 11960

CAS Registry No.: 606968-52-9
Formal Name: cyclo[3-(2-naphthalenyl)-L-alanylglycyl-D-tyrosyl-L-arginyl-L-arginyl]
MF: C₃₆H₄₇N₁₁O₆
FW: 729.8
Purity: ≥95%
UV/Vis.: λ_{max}: 226, 277 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

FC 131 is supplied as a crystalline solid. A stock solution may be made by dissolving the FC 131 in water. The solubility of FC 131 in water is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

C-X-C chemokine receptor 4 (CXCR4) is a receptor for the stromal cell-derived factor-1 (SDF-1) which is designated as chemokine ligand 12 (CXCL12). It is involved in cell progression, hematopoiesis, cancer, HIV entry, and rheumatoid arthritis.¹⁻³ FC 131 is an inhibitor of CXCR4 activation by SDF-1 (IC₅₀ = 4.5 nM) and also blocks HIV-induced cytopathogenicity (EC₅₀ = 73 nM).³ FC 131 derivatives can be used for imaging CXCR4 and elucidating its function.⁴

References

1. Broxmeyer, H.E., Orschell, C.M., Clapp, D.W., *et al.* Rapid mobilization of murine and human hematopoietic stem and progenitor cells with AMD3100, a CXCR4 antagonist. *J. Exp. Med.* **201(8)**, 1307-1318 (2005).
2. Dorsam, R.T. and Gutkind, J.S. G-protein-coupled receptors and cancer. *Nat. Rev. Cancer* **7(2)**, 79-94 (2007).
3. Tamamura, H., Hiramatsu, K., Ueda, S., *et al.* Stereoselective synthesis of [L-Arg-L/D-3-(2-naphthyl) alanine]-type (E)-alkene dipeptide isosteres and its application to the synthesis and biological evaluation of pseudopeptide analogues of the CXCR4 antagonist FC131. *J. Med. Chem.* **48(2)**, 380-391 (2005).
4. Kuil, J., Buckle, T., and van Leeuwen, F.W.B. Imaging agents for the chemokine receptor 4 (CXCR4). *Chem. Soc. Rev.* **41(15)**, 5239-5261 (2012).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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