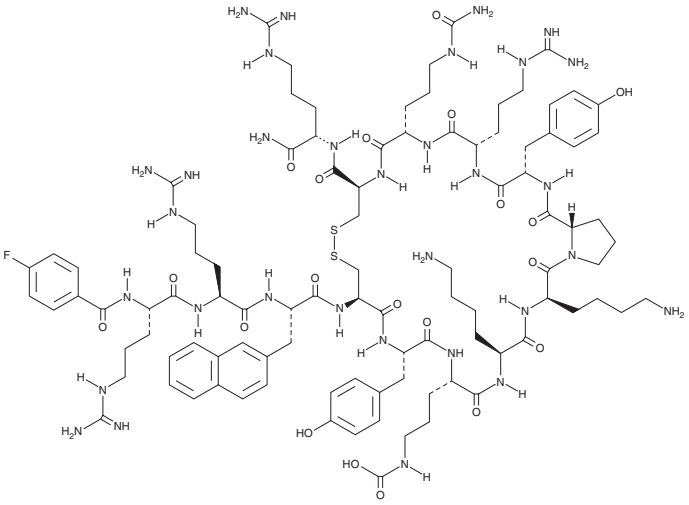
PRODUCT INFORMATION

BKT 140

Item No. 30689

CAS Registry No.:	664334-36-5
Formal Name:	N^2-(4-fluorobenzoyl)-L-arginyl-L-arginyl-3-(2-naphthalenyl)-L-alanyl-L-cysteinyl-L-tyrosyl-N^5-(aminocarbonyl)-L-ornithyl-L-lysyl-D-lysyl-L-prolyl-L-tyrosyl-L-arginyl-N^5-(aminocarbonyl)-L-ornithyl-L-cysteinyl-L-argininamide, cyclic (4→13)-disulfide
Synonyms:	4F-benzoyl-TN14003, BL-8040, Motixafortide, TF 14016
MF:	$C_{97}H_{144}FN_{33}O_{19}S_2$
FW:	2,159.5
Purity:	≥95%
UV/Vis.:	λ_{max}: 227 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

BKT 140 is supplied as a crystalline solid. A stock solution may be made by dissolving the BKT 140 in the solvent of choice, which should be purged with an inert gas. BKT 140 is soluble in the organic solvent DMSO at a concentration of approximately 200 mg/ml.

Description

BKT 140 is an antagonist of chemokine (C-X-C motif) receptor 4 (CXCR4; IC_{50} = 0.91 nM).[1] It inhibits HIV-1-induced cytopathogenicity in MT-4 cells with an EC_{50} value of 4 nM. BKT 140 (100 nM) reduces migration of SUP-T1 leukemia and MDA-MB-231 breast cancer cells induced by chemokine (C-X-C) ligand 12 (CXCL12).[1] It induces apoptosis in NB4 leukemia and RPMI-8226 multiple myeloma cancer cells when used at concentrations 8 and 40 µM.[2] BKT 140 reduces pulmonary metastasis in an MDA-MB-231 mouse xenograft model.[1] It also reduces the incidence of arthritis in a mouse model of collagen-induced arthritis.[3]

References

1. Tamamura, H., Hori, A., Kanzaki, N., *et al.* T140 analogs as CXCR4 antagonists identified as anti-metastatic agents in the treatment of breast cancer. *FEBS Lett.* **550(1-3)**, 79-83 (2003).
2. Beider, K., Begin, M., Abraham, M., *et al.* CXCR4 antagonist 4F-benzoyl-TN14003 inhibits leukemia and multiple myeloma tumor growth. *Exp. Hematol.* **39(3)**, 282-292 (2011).
3. Tamamura, H., Fujisawa, M., Hiramatsu, K., *et al.* Identification of a CXCR4 antagonist, a T140 analog, as an anti-rheumatoid arthritis agent. *FEBS Lett.* **569(1-3)**, 99-104 (2004).

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