SZABO SCANDIC

Part of Europa Biosite

# Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


**SZABO-SCANDIC HandelsgmbH**

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

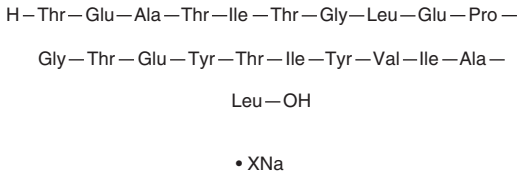
linkedin.com/company/szaboscandic

# PRODUCT INFORMATION

## FNIII14 (sodium salt)

*Item No. 41396*

**Formal Name:** L-threonyl-L-α-glutamyl-L-alanyl-L-threonyl-L-isoleucyl-L-threonylglycyl-L-leucyl-L-α-glutamyl-L-prolylglycyl-L-threonyl-L-α-glutamyl-L-tyrosyl-L-threonyl-L-isoleucyl-L-tyrosyl-L-valyl-L-isoleucyl-L-alanyl-L-leucine, sodium salt




**Synonym:** FNIII14-2
**Peptide Sequence:** TEATITGLEPGTWYTIYVIAL-OH
**MF:** $C_{103}H_{163}N_{21}O_{35}$ • XNa
**FW:** 2,255.5
**Purity:** ≥95%
**Supplied as:** A 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

FNIII14 (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the FNIII14 (sodium salt) in the solvent of choice, which should be purged with an inert gas. FNIII14 (sodium salt) is soluble (≥10 mg/ml) in DMSO.

### Description

FNIII14 is an inhibitor of cell adhesion and a peptide derived from the 14$^{th}$ type III repeat, which is part of heparin-binding domain 2, of human, mouse, and rat fibronectin.[1,2] It inhibits the adhesion of A375-SM melanoma cells to fibronectin-coated plates when used at a concentration of 200 µg/ml.[1] FNIII14 (100 µg/ml) inhibits the binding of an antibody targeting the active conformation of the fibronectin receptor β1 integrin on K562 cells, which endogenously express integrin α5β1 as its only β1 integrin, and induces the differentiation of ST 13 fibroblasts into adipocytes.[2] It decreases atherosclerotic plaque formation in *Ldlr*$^{-/-}$ mice fed a Western diet.[3] FNIII14, in combination with the antitumor antibiotic doxorubicin (Item No. 15007), reduces metastatic tumor burden in a 4T1 murine mammary model of metastasis.[4]

### References


1. Fukai, F., Hasabe, S., Ueki, M., *et al.* Identification of the anti-adhesive site buried within the heparin-binding domain of fibronectin. *J. Biochem.* **121(2)**, 189-192 (1997).
2. Kamiya, S., Kato, R., Wakabayashi, M., *et al.* Fibronectin peptides derived from two distinct regions stimulate adipocyte differentiation by preventing fibronectin matrix assembly. *Biochemistry* **41(9)**, 3270-3277 (2002).
3. Iyoda, T., Ohishi, A., Wang, Y., *et al.* Bioactive TNIIIA2 sequence in tenascin-C is responsible for macrophage foam cell transformation; Potential of FNIII14 peptide derived from fibronectin in suppression of atherosclerotic plaque formation. *Int. J. Mol. Sci.* **25(3)**, 1825 (2024).
4. Iyoda, T., Nagamine, Y., Nakane, Y., *et al.* Coadministration of the FNIII14 peptide synergistically augments the anti-cancer activity of chemotherapeutic drugs by activating pro-apoptotic bim. *PLoS One* **11(9)**, e0162525 (2016).





**CAYMAN CHEMICAL**
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
**PHONE:** [800] 364-9897
[734] 971-3335
**FAX:** [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM