

# PRODUCT INFORMATION



## Prosaptide TX14(A) (trifluoroacetate salt)

Item No. 33935

**Formal Name:** L-threonyl-D-alanyl-L-leucyl-L-isoleucyl-L- $\alpha$ -aspartyl-L-asparaginyl-L-asparaginyl-L-alanyl-L-threonyl-L- $\alpha$ -glutamyl-L- $\alpha$ -glutamyl-L-isoleucyl-L-leucyl-L-tyrosine  
**Synonym:** Prosaposin-derived 14-mer Peptide TX14(A)

**MF:**  $C_{69}H_{110}N_{16}O_{26} \cdot XCF_3COOH$

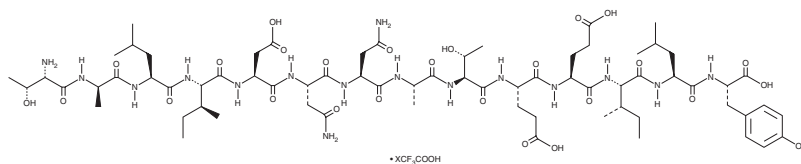
**FW:** 1,579.7

**Purity:**  $\geq 98\%$

**Supplied as:** A solid

**Storage:**  $-20^{\circ}C$

**Stability:**  $\geq 2$  years



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

### Laboratory Procedures

Prosaptide TX14(A) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the prosaptide TX14(A) (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Prosaptide TX14(A) (trifluoroacetate salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of prosaptide TX14(A) (trifluoroacetate salt) in these solvents is approximately 1 mg/ml.

### Description

Prosaptide TX14(A) is a peptide fragment of the neurotrophic factor prosaposin and an agonist of GPR37L1 and GPR37.<sup>1</sup> It activates ERK signaling in HEK293T cells expressing GPR37L1 or GPR37 ( $EC_{50}S = 5$  and  $7$  nM, respectively) and inhibits forskolin-induced cAMP production in the same cells. Prosaptide TX14(A) ( $100$  nM) protects primary mouse astrocytes from hydrogen peroxide-induced cell death. It reduces allodynia in a variety of rat peripheral pain models, including models of diabetic neuropathy and sciatic nerve hemiligation when administered at a dose of  $4$  mg/kg, as well as prevents paw allodynia induced by formalin at  $1$  mg/kg.<sup>2</sup>

### References

1. Meyer, R.C., Giddens, M.M., Schaefer, S.A., *et al.* GPR37 and GPR37L1 are receptors for the neuroprotective and glioprotective factors prosaptide and prosaposin. *Proc. Natl. Acad. Sci. USA* **110**(23), 9529-9534 (2013).
2. Jolival, C.G., Ramos, K.M., Herbetsson, K., *et al.* Therapeutic efficacy of prosaposin-derived peptide on different models of allodynia. *Pain* **121**(1-2), 14-21 (2006).

#### 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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