

PRODUCT INFORMATION



TIP39 (human, bovine) (trifluoroacetate salt)

Item No. 37452

Formal Name: L-seryl-L-leucyl-L-alanyl-L-leucyl-L-alanyl-L-
α-aspartyl-L-α-aspartyl-L-alanyl-L-alanyl-L-
phenylalanyl-L-arginyl-L-α-glutamyl-L-arginyl-L-
alanyl-L-arginyl-L-leucyl-L-leucyl-L-alanyl-L-alanyl-
L-leucyl-L-α-glutamyl-L-arginyl-L-arginyl-L-histidyl-
L-tryptophyl-L-leucyl-L-asparaginy-L-seryl-L-tyrosyl-
L-methionyl-L-histidyl-L-lysyl-L-leucyl-L-leucyl-
L-valyl-L-leucyl-L-α-aspartyl-L-alanyl-L-proline,
trifluoroacetate salt

Synonym: Tuberoinfundibular Peptide of 39 Residues

Peptide Sequence: SLALDDAAFRERARLLAALERRHWLNSYMHKLLVL
DAP-OH

MF: C₂₀₂H₃₂₅N₆₁O₅₄S • XCF₃COOH

FW: 4,504.2

Purity: ≥98%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

H—Ser—Leu—Ala—Leu—Ala—Asp—Asp—Ala—Ala—Phe—
Arg—Glu—Arg—Ala—Arg—Leu—Leu—Ala—Ala—Leu—
Glu—Arg—Arg—His—Trp—Leu—Asn—Ser—Tyr—Met—
His—Lys—Leu—Leu—Val—Leu—Asp—Ala—Pro—OH
• XCF₃COOH

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

Laboratory Procedures

TIP39 (human, bovine) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the TIP39 (human, bovine) (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. TIP39 (human, bovine) (trifluoroacetate salt) is soluble in a 20:80 solution of acetonitrile:water.

Description

TIP39 is a neuropeptide and parathyroid hormone receptor type 2 (PTH2R) agonist.¹ It induces cAMP accumulation in COS-7 cells expressing recombinant human or rat PTH2R (EC₅₀s = 0.5 and 0.8 nM, respectively) and F-11 cells that endogenously express PTH2R (EC₅₀ = 1.15 nM). TIP39 (1 nM) induces cell cycle arrest at the G₀/G₁ phase and decreases expression of the master regulator of cartilage differentiation Sox9 in CFK2 rat chondrocytes.² TIP39 (100 pmol/animal) decreases immobility time in the forced swim test in mice.³

References

1. Usdin, T.B., Hoare, S.R., Wang, T., et al. TIP39: A new neuropeptide and PTH2-receptor agonist from hypothalamus. *Nat. Neurosci.* **2(11)**, 941-943 (1999).
2. Panda, D., Goltzman, D., Jüppner, H., et al. TIP39/parathyroid hormone type 2 receptor signaling is a potent inhibitor of chondrocyte proliferation and differentiation. *Am. J. Physiol. Endocrinol. Metab.* **297(5)**, E1125-E1136 (2009).
3. LaBuda, C.J., Dobolyi, A., and Usdin, T.B. Tuberoinfundibular peptide of 39 residues produces anxiolytic and antidepressant actions. *Neuroreport* **15(5)**, 881-885 (2004).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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