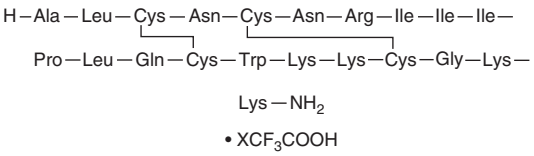
PRODUCT INFORMATION

Tertiapin LQ (trifluoroacetate salt)

Item No. 37496

Formal Name: 2,2'-((2S,5S,8R,11S,14S,17S,20R,25R,28S,31S,34S,37S,40S,42aS,49S,52R)-11-((1H-indol-3-yl)methyl)-20-((2-(((S)-6-amino-1-(((S)-1,6-diamino-1-oxohexan-2-yl)amino)-1-oxohexan-2-yl)amino)-2-oxoethyl)carbamoyl)-5-(3-amino-3-oxopropyl)-14,17-*bis*(4-aminobutyl)-52-((S)-2-((S)-2-aminopropanamido)-4-methylpentanamido)-34,37,40-tri((S)-sec-butyl)-31-(3-guanidinopropyl)-2-isobutyl-3,6,9,12,15,18,26,29,32,35,38,41,42,48,51-pentadecaoxodotetracontahydro-1H,24H-25,8-(epiminoethanoiminopropanodithiomethano)pyrrolo[1,2-x][1,2]dithia[5,8,11,14,17,20,23,24,29,32,35,38,41]tridecaazacyclotetratetracontine-28,49-diyl)diacetamide, trifluoroacetate salt



Synonym: TPNLQ

Peptide Sequence: ALCNCNRIIIPLQCWKKCGKK-NH_2

MF: $C_{106}H_{179}N_{33}O_{24}S_4 \bullet XCF_3COOH$

FW: 2,428.0

Purity: ≥98%

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

Tertiapin LQ (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the tertiapin LQ (trifluoroacetate salt) in water. We do not recommend storing the aqueous solution for more than one day.

Description

Tertiapin LQ is a peptide derivative of the honeybee venom peptide tertiapin and an inhibitor of inwardly rectifying potassium (K_{ir}) channels.[1,2] It inhibits heteromultimeric potassium channels composed of G protein-activated inward rectifier potassium channel 1 (GIRK1) and GIRK4, also known as $K_{ir}3.1$ and $K_{ir}3.4$, respectively, as well as the inward-rectifier potassium channel 1 ($K_{ir}1.1$). *In vivo*, tertiapin LQ suppresses the Purkinje cell pause response to a conditional stimulus in ferrets.[2]

References

1. Ye, W., Chang, R.B., Bushman, J.D., *et al.* The K^+ channel $K_{IR}2.1$ functions in tandem with proton influx to mediate sour taste transduction. *Proc. Natl. Acad. Sci. USA* **113(2)**, E229-E238 (2016).
2. Johansson, F. and Hesslow, G. Kir3 channel blockade in the cerebellar cortex suppresses performance of classically conditioned Purkinje cell responses. *Sci. Rep.* **10(1)**, 15654 (2020).

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