

# PRODUCT INFORMATION



## P110 (trifluoroacetate salt)

Item No. 37450

**Formal Name:** (3S,12S,15S,18S,21S,24S,27S,30S,33S,36S,42S)-42-amino-3-((((S)-1-(((S)-1-((S)-2-(((S)-1-((2-(((S)-1-amino-3-hydroxy-1-oxopropan-2-yl)amino)-2-oxoethyl)amino)-5-guanidino-1-oxopentan-2-yl)carbamoyl)pyrrolidin-1-yl)-4-methyl-1-oxopentan-2-yl)amino)-4-methyl-1-oxopentan-2-yl)carbamoyl)-21-(3-amino-3-oxopropyl)-30,33-bis(4-aminobutyl)-12,15,18,24,27,36-hexakis(3-guanidinopropyl)-43-(4-hydroxyphenyl)-5,8,11,14,17,20,23,26,29,32,35,38,41-tridecaoxo-4,7,10,13,16,19,22,25,28,31,34,37,40-tridecaazatritetracontanoic acid, trifluoroacetate salt

H-Tyr-Gly-Arg-Lys-Lys-Arg-Arg-Gln-Arg-Arg-Arg-Gly-Gly-Asp-Leu-Leu-Pro-Arg-Gly-Ser-OH  
• XCF<sub>3</sub>COOH

**Peptide Sequence:** YGRKKRRQRRRGDILLPRGS-OH

**MF:** C<sub>100</sub>H<sub>179</sub>N<sub>45</sub>O<sub>25</sub> • XCF<sub>3</sub>COOH

**FW:** 2,411.8

**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

P110 (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the P110 (trifluoroacetate salt) in water. We do not recommend storing the aqueous solution for more than one day.

### Description

P110 is a peptide inhibitor of the mitochondrial GTPase dynamin-related protein 1 (DRP1).<sup>1</sup> It selectively inhibits DRP1 GTPase activity over the additional mitochondrial GTPases OPA1, MFN1, and dynamin 1 at 1 μM. P110 (1 μM) inhibits the MPP<sup>+</sup>-induced protein-protein interaction between DRP1 and mitochondrial fission 1 (FIS1), as well as MPP<sup>+</sup>-, carbonyl cyanide M-chloro phenyl hydrazone-, rotenone-, or hydrogen peroxide-induced DRP1 translocation to the mitochondria in SH-SY5Y cells. It also inhibits MPP<sup>+</sup>-induced mitochondrial apoptosis and autophagy in SH-SY5Y cells and MPP<sup>+</sup>-induced mitochondrial fragmentation and cell death in a primary rat dopaminergic neuronal model of Parkinson's disease.

### Reference

1. Qi, X., Qvit, N., Su, Y.-C., *et al.* A novel Drp1 inhibitor diminishes aberrant mitochondrial fission and neurotoxicity. *J. Cell Sci.* **126**(3), 789-802 (2013).

#### 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

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