

Product Data Sheet

Product Name: P110 (trifluoroacetate salt)

Cat. No.: GC90607

Chemical Properties

Cas. No.

Formula $C_{100}H_{179}N_{45}O_{25} \cdot XCF_3COOH$ M.Wt 2411.8

Solubility Water: Soluble Storage Store at $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure

$$H-Tyr-Gly-Arg-Lys-Lys-Arg-Arg-Gln-Arg-Arg-Arg-Gly-Gly-Asp-Leu-Leu-Pro-Arg-Gly-Ser-OH$$

$$\cdot XCF_3COOH$$

Background

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

Caution: Product has not been fully validated for medical applications. For research use only.

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