

Product data sheet



MedKoo Cat#: 531327 Name: PF9601N CAS: 133845-63-3 Chemical Formula: C ₁₉ H ₁₈ N ₂ O Exact Mass: 290.1419 Molecular Weight: 290.366		
Product supplied as:	Powder	
Purity (by HPLC):	≥ 98%	
Shipping conditions	Ambient temperature	
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.	

1. Product description:

PF9601N is a selective and potent monoamine oxidase B inhibitor that exhibit anti-Parkinsonian effects in several models of PD.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMF	30.0	103.32
DMSO	30.0	103.32
DMSO:PBS (pH 7.2) (1:3)	0.25	0.86
Ethanol	20.0	68.88

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.44 mL	17.22 mL	34.44 mL
5 mM	0.69 mL	3.44 mL	6.89 mL
10 mM	0.34 mL	1.72 mL	3.44 mL
50 mM	0.07 mL	0.34 mL	0.69 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Sanz E, Quintana A, Hidalgo J, Marco JL, Unzeta M. PF9601N [N-(2-propynyl)-2-(5-benzyloxy-indolyl) methylamine] confers MAO-B independent neuroprotection in ER stress-induced cell death. Mol Cell Neurosci. 2009 May;41(1):19-31. doi: 10.1016/j.mcn.2009.01.005. Epub 2009 Feb 4. PMID: 19386233.

2. Sanz E, Quintana A, Battaglia V, Toninello A, Hidalgo J, Ambrosio S, Valoti M, Marco JL, Tipton KF, Unzeta M. Anti-apoptotic effect of Mao-B inhibitor PF9601N [N-(2-propynyl)-2-(5-benzyloxy-indolyl) methylamine] is mediated by p53 pathway inhibition in MPP⁺-treated SH-SY5Y human dopaminergic cells. J Neurochem. 2008 Jun 1;105(6):2404-17. doi: 10.1111/j.1471-4159.2008.05326.x. PMID: 18331475.

In vivo study

1. Perez V, Unzeta M. PF 9601N [N-(2-propynyl)-2-(5-benzyloxy-indolyl) methylamine], a new MAO-B inhibitor, attenuates MPTP-induced depletion of striatal dopamine levels in C57/BL6 mice. Neurochem Int. 2003 Feb;42(3):221-9. doi: 10.1016/s0197-0186(02)00091-8. PMID: 12427476.

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2. Cutillas B, Ambrosio S, Unzeta M. Neuroprotective effect of the monoamine oxidase inhibitor PF 9601N [N-(2-propynyl)-2-(5-benzyloxy-indolyl) methylamine] on rat nigral neurons after 6-hydroxydopamine-striatal lesion. *Neurosci Lett.* 2002 Aug 30;329(2):165-8. doi: 10.1016/s0304-3940(02)00614-6. PMID: 12165403.

7. Bioactivity

Biological target:

PF9601N is a selective and potent monoamine oxidase B inhibitor.

In vitro activity

Therefore, this study studied the potential usefulness of PF9601N, a non-amphetamine-like MAO-B inhibitor, in preventing cell death in a cell culture model of ER stress. In this context, PF9601N pretreatment prevented brefeldin A-induced UPR responses, thus blocking the expression of GADD153/CHOP and resulting apoptotic features. In summary, these data suggests that PF9601N is able to block the responses elicited by ER stress, thus preventing apoptotic cell death in brefeldin A-treated cells.

Reference: *Mol Cell Neurosci.* 2009 May;41(1):19-31. <https://pubmed.ncbi.nlm.nih.gov/19386233/>

In vivo activity

In these conditions, chronic administration with 0.15 micromol/kg of PF 9601N, before the toxin, every 24 h for 10 days, rendered almost total protection of dopamine depletion, whereas L-deprenyl yielded only 50% protection of the dopamine content, assayed in the same conditions. It is worth remarking, that in both cases MAO-B was not affected. From these results, it can be concluded that PF 9601N attenuates MPTP neurotoxicity "in vivo" better than L-deprenyl through different mechanisms, with special relevance to the protective effect, independent of MAO-B inhibition, observed in the irreversibly MPTP-lesioned adult-old mice.

Reference: *Neurochem Int.* 2003 Feb;42(3):221-9. <https://pubmed.ncbi.nlm.nih.gov/12427476/>

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.