SZABO SCANDIC

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# Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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See the following pages for more information!

## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


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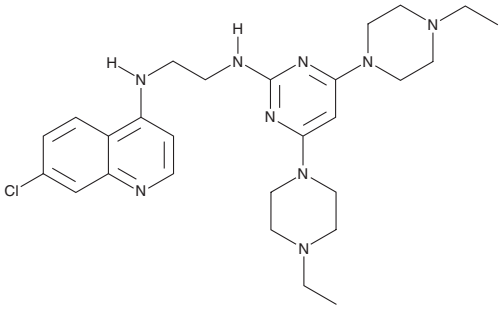
# PRODUCT INFORMATION

## 4A7C-301-Nurr1 Agonist

*Item No. 39453*

| | |
|---|---|
| **Formal Name:** | $N^1$-(4,6-*bis*(4-ethylpiperazin-1-yl) pyrimidin-2-yl)-$N^2$-(7-chloroquinolin-4-yl)ethane-1,2-diamine |
| **Synonym:** | 4A7C-301-Nuclear Receptor-Related 1 |
| **MF:** | $C_{27}H_{38}ClN_9$ |
| **FW:** | 524.1 |
| **Purity:** | ≥98% |
| **UV/Vis.:** | $\lambda_{max}$: 221 nm |
| **Supplied as:** | A solid |
| **Storage:** | -20°C |
| **Stability:** | ≥2 years |



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

### Laboratory Procedures

4A7C-301-Nurr1 agonist is supplied as a solid. A stock solution may be made by dissolving the 4A7C-301-Nurr1 agonist in the solvent of choice, which should be purged with an inert gas. 4A7C-301-Nurr1 agonist is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 4A7C-301-Nurr1 agonist in ethanol is approximately 30 mg/ml and approximately 20 mg/ml in DMSO and DMF.

### Description

4A7C-301-Nurr1 agonist is an agonist of nuclear receptor-related 1 (Nurr1).[1] It binds to the Nurr1 ligand-binding domain (LBD; $IC_{50}$ = 48.22 nM) and increases transcriptional activity of Nurr1-LBD and full-length Nurr1 in reporter assays using SK-N-BE(2)C human neuroblastoma cells ($EC_{50}$s = 6.53 and 50-70 µM, respectively). 4A7C-301-Nurr1 agonist (5 mg/kg per day) decreases dopaminergic cell death in the striatum and substantia nigra pars compacta, as well as reduces motor and olfactory deficits, without inducing dyskinesia-like behaviors in mouse models of Parkinson's disease induced by the neurotoxin MPTP or by overexpression of α-synuclein.

### Reference


1. Kim, W., Tripathi, M., Kim, C., *et al.* An optimized Nurr1 agonist provides disease-modifying effects in Parkinson's disease models. *Nat Commun* **14(1)**, 4283 (2023).





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