



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC Handels GmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

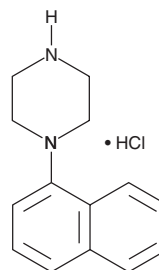
PRODUCT INFORMATION



1-(1-Naphthyl)piperazine (hydrochloride)

Item No. 16150

CAS Registry No.: 104113-71-5
Formal Name: 1-(1-naphthalenyl)-piperazine, monohydrochloride
Synonym: 1-NP
MF: $C_{14}H_{16}N_2 \cdot HCl$
FW: 248.7
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 216, 302 nm
Supplied as: A crystalline solid
Storage: $-20^{\circ}C$
Stability: ≥ 2 years



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

Laboratory Procedures

1-(1-Naphthyl)piperazine (1-NP) (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the 1-NP (hydrochloride) in the solvent of choice. 1-NP (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of 1-NP (hydrochloride) in these solvents is approximately 25, 20, and 30 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 1-NP (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 1-NP (hydrochloride) in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

1-NP is a ligand for serotonin (5-hydroxytryptamine, 5-HT) receptors. It acts as an antagonist for 5-HT at 5-HT₁ and 5-HT₂ in rat cortical membranes with IC₅₀ values of 6 and 1 nM, respectively.¹ 1-NP also blocks contraction in the rat fundus induced by either 5-HT or tryptamine (IC₅₀ = 1 nM for both agonists).¹ 1-NP mimics the 5-HT₁ agonist 1-(*m*-trifluoromethylphenyl)piperazine (TFMPP, Item No. 11205) in decreasing 5-HT receptor turnover and increasing serum corticosterone, suggesting that, in the absence of 5-HT, 1-NP may act as an agonist of the 5-HT₁ receptor.² However, in squirrel monkeys, 1-NP acts as a non-selective 5-HT receptor antagonist in altering operant behavior.² 1-NP also binds to the human 5-HT₆ receptor with an affinity comparable to that of 5-HT (K_is = 120 and 100 nM, respectively).³

References

1. Cohen, M.L. and Wittenauer, L.A. Relationship between serotonin and tryptamine receptors in the rat stomach fundus. *J. Pharmacol. Exp. Ther.* **233**(1), 75-79 (1985).
2. McKearney, J.W. Serotonin-antagonist effects of 1-(1-naphthyl)piperazine on operant behavior of squirrel monkeys. *Neuropharmacology* **28**(8), 817-821 (1989).
3. Lee, M., Rangisetty, J.B., Pullagurla, M.R., et al. 1-(1-Naphthyl)piperazine as a novel template for 5-HT₆ serotonin receptor ligands. *Bioorg. Med. Chem. Lett.* **15**(6), 1707-1711 (2005).

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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 05/22/2018

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM