



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 HandelsgmbH

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) 

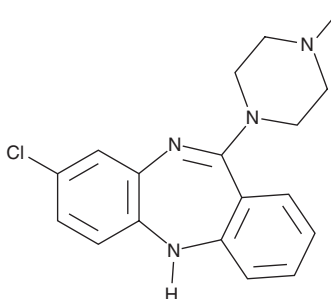
PRODUCT INFORMATION



Clozapine

Item No. 12059

CAS Registry No.: 5786-21-0
Formal Name: 8-chloro-11-(4-methyl-1-piperazinyl)-5H-dibenzo[b,e][1,4]diazepine
Synonym: HF 1854
MF: C₁₈H₁₉ClN₄
FW: 326.8
Purity: ≥98%
UV/Vis.: λ_{max}: 214, 229, 259 nm
Supplied as: A crystalline 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

Clozapine is supplied as a crystalline solid. A stock solution may be made by dissolving the clozapine in the solvent of choice, which should be purged with an inert gas. Clozapine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of clozapine in ethanol is approximately 5 mg/ml and approximately 12.5 mg/ml in DMSO and DMF.

Clozapine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, clozapine should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Clozapine has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Clozapine is a partial agonist at the serotonin (5-HT) receptor subtype 5-HT (K_i = 180 nM).^{1,2} It also binds to the 5-HT_{2A}, 5-HT_{2C}, 5-HT₃, 5-HT₆ and 5-HT₇ receptors (K_is = 3.3, 13, 110, 4, and 21 nM, respectively), as well as the histamine H₁ and α₁-adrenergic receptors (K_is = 2.1 and 23 nM, respectively). It does not bind to the 5-HT_{1B} receptor and has a lower affinity for dopamine receptors (K_is = 540, 150, and 360 nM for D1-3, respectively). Clozapine induces the release of glutamate and D-serine, an agonist at the glycine site of the NMDA receptor, from astrocytes, and reduces the expression of astrocytic glutamate transporters.³ It reverses locomotor hyperactivity and deficits in prepulse inhibition of acoustic startle in a rat neonatal ventral hippocampal ibotenic lesion model of schizophrenia when administered at a dose of 2.5 mg/kg per day.⁴ Formulations containing clozapine have been used in the treatment of schizophrenia.

References

1. Millan, M.J. *J. Pharmacol. Exp. Ther.* Improving the treatment of Schizophrenia: Focus on serotonin (5-HT)_{1A} receptors. **295(3)**, 853-861 (2000).
2. Schotte, A., Janssen, P.F., Gommeren, W., *et al.* Risperidone compared with new and reference antipsychotic drugs: In vitro and in vivo receptor binding *Psychopharmacology (Berl)* **124(1-2)**, 57-73 (1996).
3. Tanahashi, S., Yamamura, S., Nakagawa, M., *et al.* Clozapine, but not haloperidol, enhances glial D-serine and L-glutamate release in rat frontal cortex and primary cultured astrocytes. *Br. J. Pharmacol.* **165(5)**, 1543-1555 (2013).
4. Rueter, L.E., Ballard, M.E., Gallagher, K.B., *et al.* Chronic low dose risperidone and clozapine alleviate positive but not negative symptoms in the rat neonatal ventral hippocampal lesion model of schizophrenia. *Psychopharmacology (Berl)*. **176(3-4)**, 312-319 (2004).

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, 11/21/2022

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