

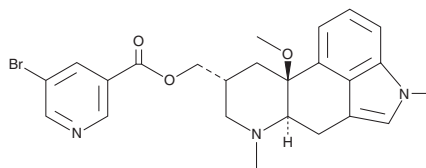
# PRODUCT INFORMATION



## Nicergoline

Item No. 31573

**CAS Registry No.:** 27848-84-6  
**Formal Name:** (8 $\beta$ )-10-methoxy-1,6-dimethyl-ergoline-8-methanol, 8-(5-bromo-3-pyridinecarboxylate)  
**Synonyms:** FI-6714, Nicotergoline, NSC 150531, TA-079  
**MF:** C<sub>24</sub>H<sub>26</sub>BrN<sub>3</sub>O<sub>3</sub>  
**FW:** 484.4  
**Purity:**  $\geq$ 98%  
**UV/Vis.:**  $\lambda_{\text{max}}$ : 227 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 4 years



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

### Laboratory Procedures

Nicergoline is supplied as a solid. A stock solution may be made by dissolving the nicergoline in the solvent of choice, which should be purged with an inert gas. Nicergoline is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of nicergoline in these solvents is approximately 10 mg/ml in ethanol and 20 mg/ml in DMSO and DMF.

Nicergoline is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, nicergoline should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Nicergoline has a solubility of approximately 0.1 mg/ml in a 1:9 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Nicergoline is an antagonist of  $\alpha_1$ -adrenergic receptors ( $\alpha_1$ -ARs).<sup>1</sup> It binds to  $\alpha_1$ -ARs in rat brain membranes ( $K_i = 12.5$  nM) and inhibits  $\alpha_1$ -AR agonist-induced contractions in endothelium-denuded isolated rat aortic rings and perfused mesenteric vascular beds ( $pA_{2s} = 8.6$  and  $11.1$ , respectively). *In vivo*, nicergoline (0.5  $\mu$ g/kg per minute, i.v.) inhibits pressor responses induced by the  $\alpha_1$ -AR agonist cirazoline (Item No. 21791) in pithed rats. Nicergoline (32 mg/kg) improves post-ischemic glutamate uptake and reduces neuronal cell death and mortality in a rat model of global brain ischemia induced by mild hyperthermia.<sup>2</sup> It also increases corneal NGF levels and accelerates corneal wound healing in a rat model of ocular injury.<sup>3</sup>

### References

1. Alvarez-Guerra, M., Bertholom, N., and Garay, R.P. Selective blockade by nicergoline of vascular responses elicited by stimulation of  $\alpha_{1A}$ -adrenoceptor subtype in the rat. *Fundam. Clin. Pharmacol.* **13**(1), 50-58 (1999).
2. Asai, S., Zhao, H., Yamashita, A., et al. Nicergoline enhances glutamate re-uptake and protects against brain damage in rat global brain ischemia. *Eur. J. Pharmacol.* **383**(3), 267-274 (1999).
3. Kim, S.-Y., Choi, J.-S., and Joo, C.-K. Effects of nicergoline on corneal epithelial wound healing in rat eyes. *Invest. Ophthalmol. Vis. Sci.* **50**(2), 621-625 (2009).

#### 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, 11/08/2022

#### 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