



# 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](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

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

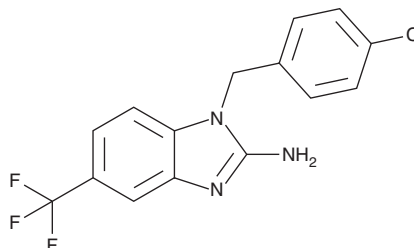
# PRODUCT INFORMATION



**NS 638**

Item No. 37193

**CAS Registry No.:** 150493-34-8  
**Formal Name:** 1-[(4-chlorophenyl)methyl]-5-(trifluoromethyl)-1H-benzimidazol-2-amine  
**MF:** C<sub>15</sub>H<sub>11</sub>ClF<sub>3</sub>N<sub>3</sub>  
**FW:** 325.7  
**Purity:** ≥95%  
**Supplied as:** A 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

NS 638 is supplied as a solid. A stock solution may be made by dissolving the NS 638 in the solvent of choice, which should be purged with an inert gas. NS 638 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of NS 638 in ethanol is approximately 2 mg/ml and approximately 5 mg/ml in DMSO and DMF.

## Description

NS 638 is an inhibitor of the N-type voltage-gated calcium channel Ca<sub>v</sub>2.2 and CNS L-type calcium channels.<sup>1</sup> It inhibits potassium-induced calcium uptake in chick cortical synaptosomes (IC<sub>50</sub> = 3.4 μM) and AMPA-induced GABA release from primary chick cortical neurons (IC<sub>50</sub> = 4.3 μM), effects that can be blocked by the N-type calcium channel inhibitor ω-conotoxin GVIA (Item No. 24114) but not the L-type calcium channel inhibitor nifedipine (Item No. 11106). It also inhibits potassium-induced calcium level increases in primary chick cerebellar granule cells (IC<sub>50</sub> = 3.4 μM), an effect that can be blocked by nifedipine but not ω-conotoxin GVIA. NS 638 (50 mg/kg) reduces infarct volume in a mouse model of focal ischemia induced by middle cerebral artery occlusion (MCAO) but not in a gerbil model of global ischemia induced by bilateral carotid artery occlusion (BCAO).

## Reference

1. Møller, A., Christophersen, P., Drejer, J., *et al.* Pharmacological profile and anti-ischemic properties of the Ca<sup>2+</sup>-channel blocker NS-638. *Neurol. Res.* **17**(5), 353-360 (1995).

### 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, 12/21/2022

## 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