



# 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) 

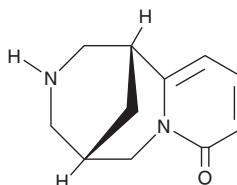
# PRODUCT INFORMATION



## Cytisine

Item No. 26437

**CAS Registry No.:** 485-35-8  
**Formal Name:** (1R,5S)-1,2,3,4,5,6-hexahydro-1,5-methano-8H-pyrido[1,2-a][1,5]diazocin-8-one  
**Synonyms:** Baptitoxine, Cytiton, Laburnin, Sophorine, Tsitafat  
**MF:** C<sub>11</sub>H<sub>14</sub>N<sub>2</sub>O  
**FW:** 190.2  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 234, 309 nm  
**Supplied as:** A crystalline 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

Cytisine is supplied as a crystalline solid. A stock solution may be made by dissolving the cytisine in the solvent of choice, which should be purged with an inert gas. Cytisine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of cytisine in these solvents is approximately 1, 5, and 20 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 cytisine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of cytisine in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Cytisine is an alkaloid that has been found in *C. laburnum*.<sup>1</sup> It is a partial agonist of nicotinic acetylcholine receptors (nAChRs) with an EC<sub>50</sub> value of approximately 1 μM for increasing current in *Xenopus* oocytes expressing α4β2 subunit-containing nAChRs. Cytisine (20 nM) inhibits current induced by acetylcholine (Item No. 23829) by 50% in *Xenopus* oocytes expressing α4β2-subunit containing nAChRs. It binds to α2β2, α2β4, α3β2, α3β4, α4β2, and α4β4 nAChR subunits expressed in HEK293 cells with K<sub>i</sub> values of 1.1, 5.4, 37, 220, 1.5, and 2.1 nM, respectively.<sup>2</sup> Cytisine (3 mg/kg) reduces increases in the intracranial self-stimulation (ICSS) threshold of rats withdrawing from nicotine self-administration, indicating a decrease in the dysphoric state induced by nicotine withdrawal.<sup>3</sup>

### References

1. Papke, R.L. and Heinemann, S.F. Partial agonist properties of cytisine on neuronal nicotinic receptors containing the β2 subunit. *Mol. Pharmacol.* **45**(1), 142-149 (1994).
2. Xiao, Y. and Kellar, K.J. The comparative pharmacology and up-regulation of rat neuronal nicotinic receptor subtype binding sites stably expressed in transfected mammalian cells. *J. Pharmacol. Exp. Ther.* **310**(1), 98-107 (2004).
3. Igari, M., Alexander, J.C., Ji, Y., et al. Varenicline and cytisine diminish the dysphoric-like state associated with spontaneous nicotine withdrawal in rats. *Neuropsychopharmacology* **39**(2), 455-465 (2014).

#### 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, 11/14/2019

#### 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