



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) 

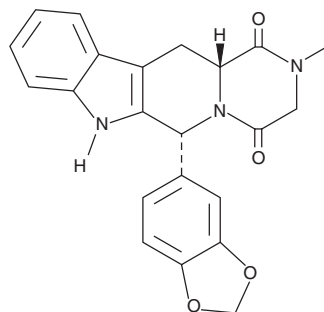
PRODUCT INFORMATION



Tadalafil

Item No. 14024

CAS Registry No.: 171596-29-5
Formal Name: (6R)-6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12aR-hexahydro-2-methyl-pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione
MF: C₂₂H₁₉N₃O₄
FW: 389.4
Purity: ≥98%
UV/Vis.: λ_{max}: 221, 284, 292 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

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

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

Description

Tadalafil is a potent inhibitor of phosphodiesterase 5 (PDE5; IC₅₀ = 1.2 nM).¹ It is selective for PDE5 over PDE1-4 and 7-10 (IC₅₀s = 9.2-280 μM), however, it does also inhibit PDE11 (IC₅₀ = 11 nM). *In vivo*, tadalafil (10 mg/kg) decreases production of the proinflammatory cytokines TNF-α, IL-1β, and IL-6 and improves renal function in a rat model of ischemia/reperfusion injury.² It also reduces development of tobacco smoke-induced emphysema and pulmonary hypertension in mice.³ Formulations containing tadalafil have been used to treat erectile dysfunction, pulmonary arterial hypertension, and lower urinary tract dysfunction.

References

1. Card, G.L., England, B.P., Suzuki, Y., *et al.* Structural basis for the activity of drugs that inhibit phosphodiesterases. *Structure* **12**(12), 2233-2247 (2004).
2. Medeiros, V.d.F.L.P., Azevedo, Í., M., Carvalho, M.D.F., *et al.* The renoprotective effect of oral tadalafil pretreatment on ischemia/reperfusion injury in rats. *Acta. Cir. Bras.* **32**(2), 90-97 (2017).
3. Seimetz, M., Parajuli, N., Pichl, A., *et al.* Cigarette smoke-induced emphysema and pulmonary hypertension can be prevented by phosphodiesterase 4 and 5 inhibition in mice. *PLoS One* **10**(6):e0129327, (2015).

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, 05/29/2018

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