



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) 

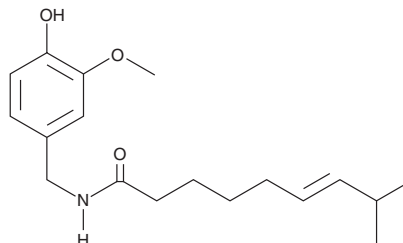
PRODUCT INFORMATION



Capsaicin

Item No. 92350

CAS Registry No.: 404-86-4
Formal Name: N-[(4-hydroxy-3-methoxyphenyl)methyl]-6E-8-methyl-nonenamide
MF: C₁₈H₂₇NO₃
FW: 305.4
Purity: ≥95%
UV/Vis.: λ_{max}: 230, 281 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years
Item Origin: Plant/Capsicum



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

Laboratory Procedures

Capsaicin is supplied as a crystalline solid. A stock solution may be made by dissolving the capsaicin in an organic solvent purged with an inert gas. Capsaicin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of capsaicin in these solvents is at least 30 mg/ml.

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 capsaicin can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of capsaicin in PBS (pH 7.2) is at least 0.1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Capsaicin is a terpene alkaloid that has been found in *Capsicum* and has diverse biological activities.¹⁻⁴ It induces inward currents in HEK293 cells expressing rat transient receptor potential vanilloid 1 (TRPV1; EC₅₀ = 0.64 μM at neutral pH), an effect that can be blocked by the TRPV1 inhibitor A-425619.¹ Capsaicin (10 and 50 μM) decreases LPS-induced prostaglandin E₂ (PGE₂; Item No. 14010) production, as well as reduces LPS- and IFN-induced nitric oxide (NO) release in isolated mouse peritoneal macrophages.² Capsaicin induces substance P release in rat spinal cord slices with an EC₅₀ value of 2.3 μM.³ It reduces acetylcholine- or phenylquinone-induced writhing (ED₅₀s = 1.33 and 1.38 mg/kg, respectively, s.c.) but has no effect on the latency to paw withdrawal in the hot plate test in mice (ED₅₀ = >20 mg/kg, s.c.).⁴ Formulations containing capsaicin have been used in the treatment of nerve pain associated with shingles.

References

1. Neelands, T.R., Jarvis, M.F., Han, P., *et al.* Acidification of rat TRPV1 alters the kinetics of capsaicin responses. *Mol. Pain* **1**, 28 (2005).
2. Kim, C.-S., Kawada, T., Kim, B.-S., *et al.* Capsaicin exhibits anti-inflammatory property by inhibiting IκB-α degradation in LPS-stimulated peritoneal macrophages. *Cell. Signal.* **15(3)**, 299-306 (2003).
3. Marvizón, J.C.G., Wang, X., Matsuka, Y., *et al.* Relationship between capsaicin-evoked substance P release and neurokinin 1 receptor internalization in the rat spinal cord. *Neuroscience* **118(2)**, 535-545 (2003).
4. Hayes, A.G., Skingle, M., and Tyers, M.B. Effects of single doses of capsaicin on nociceptive thresholds in the rodent. *Neuropharmacology* **20(5)**, 505-511 (1981).

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, 06/08/2020

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