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

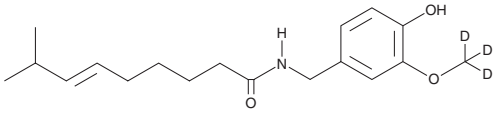
linkedin.com/company/szaboscandic

PRODUCT INFORMATION

Capsaicin-d_3

Item No. 34695

CAS Registry No.: 1217899-52-9
Formal Name: N-[[4-hydroxy-3-(methoxy-d_3)phenyl]methyl]-8-methyl-6-nonenamide
MF: $C_{18}H_{24}D_3NO_3$
FW: 308.4
Chemical Purity: ≥98% (Capsaicin)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_3); ≤1% d_0
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

Capsaicin-d_3 is intended for use as an internal standard for the quantification of capsaicin (Item Nos. 92350 | 10010743) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Capsaicin-d_3 is supplied as a solid. A stock solution may be made by dissolving the capsaicin-d_3 in the solvent of choice, which should be purged with an inert gas. Capsaicin-d_3 is soluble in chloroform, DMSO, dimethyl formamide, ethyl acetate, and methanol.

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; EC_{50} = 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 E_2 (PGE_2; 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 (Item No. 24035) release in rat spinal cord slices with an EC_{50} value of 2.3 µM.[3] It reduces acetylcholine- or phenylquinone-induced writhing (ED_{50}s = 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 (ED_{50} = >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 TRPVI 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 IkB-a 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).

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