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PRODUCT INFORMATION



(Z)-Capsaicin

Item No. 39929

CAS Registry No.: 25775-90-0

Formal Name: N-[(4-hydroxy-3-methoxyphenyl)

methyl]-8-methyl-6-nonenamide

Synonyms: cis-Capsaicin, cis-8-methyl-

N-Vanillyl-6-nonenamide,

Zucapsaicin

MF: C₁₈H₂₇NO₃ FW: 305.4 **Purity:** ≥95% 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

(Z)-Capsaicin is supplied as a solid. A stock solution may be made by dissolving the (Z)-capsaicin in the solvent of choice, which should be purged with an inert gas. (Z)-Capsaicin is soluble in methanol and DMSO.

Description

(Z)-Capsaicin is an alkaloid that has been found in Capsicum, has diverse biological activities, and is the cis-isomer of capsaicin (Item Nos. 92350 | 10010743).1-6 It is an agonist of transient receptor potential vanilloid 1 (TRPV1), inducing calcium uptake in CHO cells expressing human TRPV1 $(EC_{50} = 28.2 \text{ nM}).^2$ (Z)-Capsaicin (10 μ M) shortens the action potential duration in isolated canine Purkinje fibers.³ It increases the latency to paw withdrawal in the hot plate test in rats when administered at a dose of 0.68 mmol/animal.⁴ Topical application of (Z)-capsaicin (25 μl of a 1% solution) reduces croton oil-induced ear edema in mice. It induces emesis in musk shrews (S. murinus), 5 (Z)-Capsaicin decreases disease severity in a guinea pig model of genital herpes induced by herpes simplex virus 2 (HSV-2).⁶ Formulations containing (Z)-capsaicin have been used in the treatment of osteoarthritis and neuropathic pain.

References

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- 2. Ann, J., Kim, H.S., Thorat, S.A., et al. Discovery of nonpungent transient receptor potential vanilloid 1 (TRPV1) agonist as strong topical analgesic. J. Med. Chem. 63(1), 418-424 (2020).
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WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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.

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