

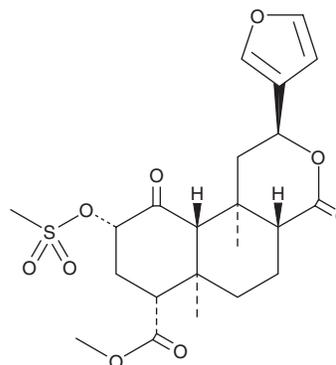
PRODUCT INFORMATION



Salvinorin B Mesylate

Item No. 22244

CAS Registry No.: 862073-79-8
Formal Name: (2S,4aR,6aR,7R,9S,10aS,10bR)-2-(3-furanyl) dodecahydro-6a,10b-dimethyl-9-[(methylsulfonyl)oxy]-4,10-dioxo-2H-naphtho[2,1-c]pyran-7-carboxylic acid, methyl ester
Synonyms: Divinorin B Mesylate, Mesyl Sal B, Sal B Mesylate
MF: C₂₂H₂₈O₉S
FW: 468.5
Purity: ≥95%
UV/Vis.: λ_{max}: 205 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

Salvinorin B mesylate is supplied as a crystalline solid. A stock solution may be made by dissolving the salvinorin B mesylate in the solvent of choice, which should be purged with an inert gas. Salvinorin B mesylate is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of salvinorin B mesylate in these solvents is approximately 20 mg/ml. Salvinorin B mesylate is slightly soluble in ethanol.

Salvinorin B mesylate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, salvinorin B mesylate should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Salvinorin B mesylate has a solubility of approximately 0.125 mg/ml in a 1:7 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Salvinorin B mesylate (Mesyl Sal B) is a selective κ-opioid receptor agonist that is more potent than salvinorin A (Item No. 11487) in CHO cells transfected with the human κ-opioid receptor (EC₅₀s = 30 and 40 nM, respectively).^{1,2} It is a mesylated version of salvinorin B (Item No. 11488) and is highly selective for κ-opioid receptors over μ- and δ-opioid receptors.¹ *In vitro*, it increases dopamine uptake via the dopamine transporter (DAT) in an ERK1/2-dependent manner but does not alter expression of DAT on the cell membrane.³ In rats, it increases the pain threshold and blocks reinstatement of cocaine drug-seeking.

References

1. Harding, W.W., Tidgewell, K., Byrd, N., *et al.* Neoclerodane diterpenes as a novel scaffold for μ opioid receptor ligands. *J. Med. Chem.* **48**(15), 4765-4771 (2005).
2. Tidgewell, K., Harding, W.W., Lozama, A., *et al.* Synthesis of salvinorin A analogues as opioid receptor probes. *J. Nat. Prod.* **69**, 914-918 (2006).
3. Simonson, B., Morani, A.S., Ewald, A.W.M., *et al.* Pharmacology and anti-addiction effects of the novel κ opioid receptor agonist Mesyl Sal B, a potent and long-acting analogue of salvinorin A. *Br. J. Pharmacol.* **172**(2), 515-531 (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, 04/20/2023

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