

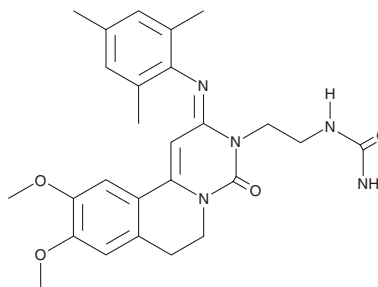
PRODUCT INFORMATION



Ensifentrine

Item No. 38761

CAS Registry No.: 1884461-72-6
Formal Name: N-[2-[(2E)-6,7-dihydro-9,10-dimethoxy-4-oxo-2-[(2,4,6-trimethylphenyl)imino]-2H-pyrimido[6,1-a]isoquinolin-3(4H)-yl]ethyl]-urea
Synonyms: RPL 554, VMX 554
MF: C₂₆H₃₁N₅O₄
FW: 477.6
Purity: ≥95%
UV/Vis.: λ_{max}: 229, 334 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Ensifentrine is supplied as a solid. A stock solution may be made by dissolving the ensifentrine in the solvent of choice, which should be purged with an inert gas. Ensifentrine is slightly soluble in DMSO and dimethyl formamide.

Description

Ensifentrine is a phosphodiesterase 3 (PDE3) inhibitor (IC₅₀ = 0.4 nM).¹ It is selective for PDE3 over PDE4 (IC₅₀ = 1,479 nM). Ensifentrine reduces phytohemagglutinin-induced proliferation of isolated human monocytes in a concentration-dependent manner and inhibits LPS-induced increases of TNF-α protein levels in isolated human monocytes (IC₅₀ = 520 nM). It increases cAMP levels in isolated human neutrophils when used at a concentration of 10 μM. Ensifentrine inhibits electric field stimulation-induced contractile responses in isolated guinea pig trachea in a concentration-dependent manner. Intranasal administration of ensifentrine (25% w/w) inhibits histamine-induced bronchoconstriction and tracheal edema in guinea pigs.

Reference

1. Boswell-Smith, V., Spina, D., Oxford, A.W., *et al.* The pharmacology of two novel long-acting phosphodiesterase 3/4 inhibitors, RPL554 [9,10-dimethoxy-2(2,4,6-trimethylphenylimino)-3-(N-carbamoyl-2-aminoethyl)-3,4,6,7-tetrahydro-2H-pyrimido[6,1-a]isoquinolin-4-one] and RPL565 [6,7-dihydro-2-(2,6-diisopropylphenoxy)-9,10-dimethoxy-4H-pyrimido[6,1-a]isoquinolin-4-one]. *J. Pharmacol. Exp. Ther.* **318**(2), 840-848 (2006).

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, 06/20/2023

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