

PRODUCT INFORMATION



ABX-1431

Item No. 26023

CAS Registry No.: 1446817-84-0
Formal Name: 4-[[2-(1-pyrrolidinyl)-4-(trifluoromethyl)phenyl]methyl]-1-piperazinecarboxylic acid, 2,2,2-trifluoro-1-(trifluoromethyl)ethyl ester

MF: C₂₀H₂₂F₉N₃O₂

FW: 507.4

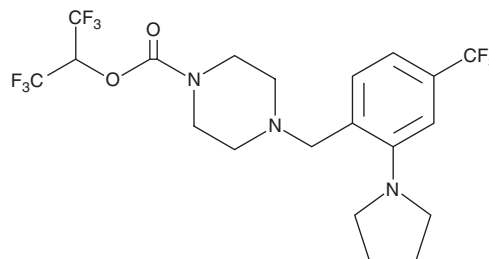
Purity: ≥98%

UV/Vis.: λ_{max}: 264, 309 nm

Supplied as: A solution in methyl acetate

Storage: -20°C

Stability: ≥2 years



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

Laboratory Procedures

ABX-1431 is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of ABX-1431 in these solvents is approximately 10 mg/ml.

For maximum solubility in aqueous buffers, evaporate the methyl acetate and dissolve in ethanol. The ethanolic solution of ABX-1431 should be diluted with the aqueous buffer of choice. ABX-1431 has a solubility of approximately 0.1 mg/ml in a 1:10 solution of ethanol:PBS (pH 7.2) using this method.

Description

ABX-1431 is an inhibitor of monoacylglycerol lipase (MAGL; IC₅₀s = 14 and 27 nM for human and rat enzyme, respectively).¹ It is selective for MAGL over ABHD6 and PLA₂G7 (IC₅₀s = 2.7 and >10 μM, respectively), as well as a panel of 33 serine hydrolases and a panel of 95 enzymes, receptors, transporters, and ion channels at 10 μM. It is also selective for MAGL over the cytochrome P450 (CYP) isoforms CYP1A2, CYP2C9, CYP2C19, and CYP3A4/5 (IC₅₀s = >50 μM). *Ex vivo*, ABX-1431 inhibits MAGL activity in mouse and rat brain (ED₅₀s = 1.4 and 0.5 mg/kg, respectively). *In vivo*, ABX-1431 decreases brain levels of 2-arachidonoyl glycerol (2-AG; Item No. 62160) in mice and rats and reduces formalin-induced paw-licking time in rats.

Reference

1. Cisar, J.S., Weber, O.D., Clapper, J.R., *et al.* Identification of ABX-1431, a selective inhibitor of monoacylglycerol lipase and clinical candidate for treatment of neurological disorders. *J. Med. Chem.* **61**(20), 9062-9084 (2018).

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, 11/10/2023

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