

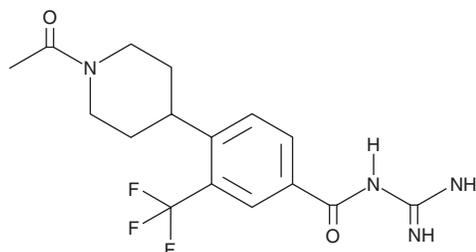
PRODUCT INFORMATION



BI-9627

Item No. 27640

CAS Registry No.: 1204329-34-9
Formal Name: 4-(1-acetyl-4-piperidiny)-
N-(aminoiminomethyl)-3-
(trifluoromethyl)-benzamide
MF: C₁₆H₁₉F₃N₄O₂
FW: 356.3
Purity: ≥95% (mixture of tautomers)
UV/Vis.: λ_{max}: 244 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

BI-9627 is supplied as a solid. A stock solution may be made by dissolving the BI-9627 in the solvent of choice, which should be purged with an inert gas. BI-9627 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of BI-9627 in these solvents is approximately 20 and 10 mg/ml, respectively.

BI-9627 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BI-9627 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. BI-9627 has a solubility of approximately 0.12 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

BI-9627 is an inhibitor of sodium-hydrogen exchanger isoform 1 (NHE1), with IC₅₀ values of 6 and 31 nM in intracellular pH recovery (pH_i) and human platelet swelling assays, respectively.¹ It is greater than 30-fold selective for NHE1 over NHE2 and is inactive at NHE3 up to 16 μM in a pH_i assay. BI-9627 inhibits phenylephrine-induced hypertrophy in neonatal rat cardiomyocytes.² It increases recovery of left ventricular developed pressure and inhibits increases in left ventricular end-diastolic pressure (LVEDP) in a Langendorff isolated perfused rat heart model of ischemia-reperfusion injury when used at a concentration of 100 nM.¹ BI-9627 (45 and 150 ppm in the diet) also attenuates decreases in left ventricular end-systolic pressure and increases in LVEDP in coronary artery-ligated rats.²

References

1. Huber, J.D., Bentzien, J., Boyer, S.J., *et al.* Identification of a potent sodium hydrogen exchanger isoform 1 (NHE1) inhibitor with a suitable profile for chronic dosing and demonstrated cardioprotective effects in a preclinical model of myocardial infarction in the rat. *J. Med. Chem.* **55**(16), 7114-7140 (2012).
2. Kilić, A., Huang, C.X., Rajapurohitam, V., *et al.* Early and transient sodium-hydrogen exchanger isoform 1 inhibition attenuates subsequent cardiac hypertrophy and heart failure following coronary artery ligation. *J. Pharmacol. Exp. Ther.* **351**(3), 492-499 (2014).

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, 10/11/2022

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