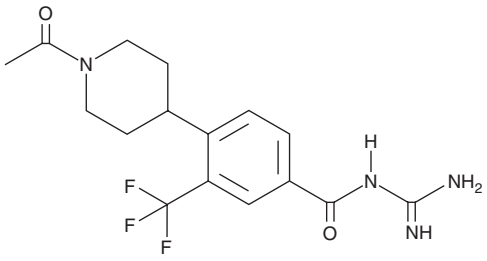
PRODUCT INFORMATION

BI-9627

Item No. 27640

CAS Registry No.:	1204329-34-9
Formal Name:	4-(1-acetyl-4-piperidinyl)-N-(aminoiminomethyl)-3-(trifluoromethyl)-benzamide
MF:	$C_{16}H_{19}F_3N_4O_2$
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 IC_{50} 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).

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