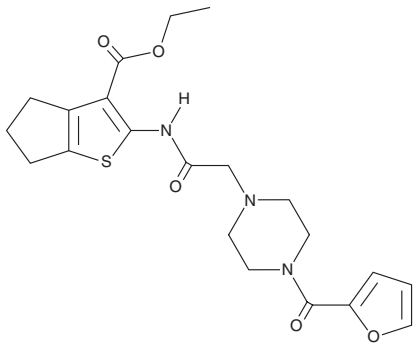
PRODUCT INFORMATION

GLX-351322

Item No. 31523

CAS Registry No.:	835598-94-2
Formal Name:	2-[[2-[4-(2-furanylcarbonyl)-1-piperazinyl]acetyl]amino]-5,6-dihydro-4H-cyclopenta[b]thiophene-3-carboxylic acid, ethyl ester
MF:	$C_{21}H_{25}N_3O_5S$
FW:	431.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 229, 253, 324 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

GLX-351322 is supplied as a crystalline solid. A stock solution may be made by dissolving the GLX-351322 in the solvent of choice, which should be purged with an inert gas. GLX-351322 is soluble in the organic solvent dimethyl formamide (DMF). GLX-351322 is soluble in DMF at a concentration of approximately 1 mg/ml. GLX-351322 is also slightly soluble in DMSO.

GLX-351322 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, GLX-351322 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. GLX-351322 has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

GLX-351322 is an inhibitor of NADPH oxidase 4 (NOX4; IC_{50} = 5 µM).[1] It is selective for NOX4 over NOX2 (IC_{50} = 40 µM). GLX-351322 (10 µM) reduces glucose-induced production of reactive oxygen species (ROS) and cytotoxicity in isolated human pancreatic islets. It decreases blood glucose levels in an intravenous glucose tolerance test in mice fed a high-fat diet when administered in the drinking water at an estimated dose of 3.8 mg/kg per day.

Reference

1. Anvari, E., Wikström, P., Walum, E., *et al.* The novel NADPH oxidase 4 inhibitor GLX351322 counteracts glucose intolerance in high-fat diet-treated C57BL/6 mice. *Free Radic. Res.* **49(11)**, 1308-1318 (2015).

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