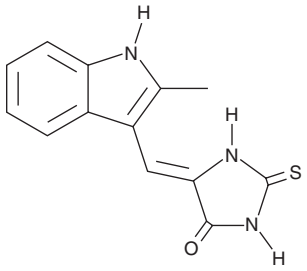
PRODUCT INFORMATION

PKG Drug G1

Item No. 29768

CAS Registry No.:	374703-78-3
Formal Name:	5-[(2-methyl-1H-indol-3-yl)methylene]-2-thioxo-4-imidazolidinone
MF:	$C_{13}H_{11}N_3OS$
FW:	257.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 228, 286, 415 nm
Supplied as:	A crystalline 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

PKG drug G1 is supplied as a crystalline solid. A stock solution may be made by dissolving the PKG drug G1 in the solvent of choice, which should be purged with an inert gas. PKG drug G1 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of PKG drug G1 in these solvents is approximately 2, 20, and 25 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of PKG drug G1 can be prepared by directly dissolving the crystalline solid in aqueous buffers. PKG drug G1 is slightly soluble in PBS, pH 7.2. We do not recommend storing the aqueous solution for more than one day.

Description

PKG drug G1 is an activator of protein kinase GIα (PKGIα).[1] It induces relaxation in U-46619-precontracted mesenteric arteries isolated from wild-type, but not oxidation-insensitive *Cys42Ser PKGIα* knock-in, mice in a concentration-dependent manner. PKG drug G1 (14.8 mg/kg) induces oxidation of PKGIα, a marker of activation, in the aorta in a mouse model of angiotensin II-induced hypertension. It decreases mean arterial pressure in the same model when administered at a dose of 20 mg/kg per day for four days.

Reference

1. Burgoyne, J.R., Prysyazhna, O., Richards, D.A., *et al.* Proof of principle for a novel class of antihypertensives that target the oxidative activation of PKG Iα (protein kinase G Iα). *Hypertension* **70(3)**, 577-586 (2017).

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