

Product Data Sheet

Product Name: KT 5823

Cat. No.: GC17346

Chemical Properties

Cas. No. 126643-37-6

Chemical Name (5S,6S,8S)-methyl 6-methoxy-5,14-dimethyl-13-oxo-6,7,8,13,14,15-hexahydro-5H-16-oxa-4b,8a,14-triaza-5,8-methanodibenzo[b,h]cycloocta[jkl]cyclopenta[e]-as-indacene-6-carboxylate

SMILES O=C([C@@]1(C)O[C@@H]2N3C4=C5N1C6=CC=CC=C6C5=C(CN(C)C7=O)C7=C4C8=CC=CC=C8)(C2)OC)OC

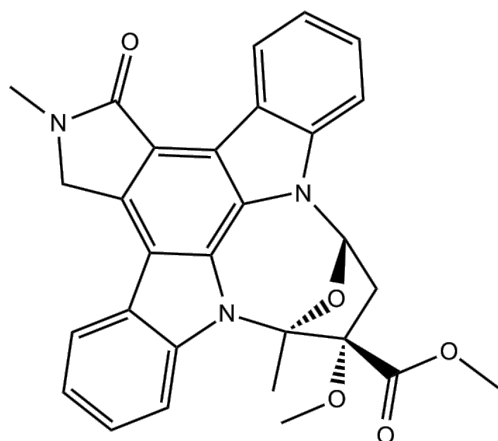
Formula $C_{29}H_{25}N_3O_5$ M.Wt 495.53

Solubility 1mg/mL in ethyl acetate or 20mg/mL in DMSO Storage Desiccate at -20°C, Protect from light

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

The activity of cGMP-dependent protein kinase (PKG) is controlled by factors that elevate cellular

Caution: Product has not been fully validated for medical applications. For research use only.

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cGMP, like nitric oxide (NO), and by those that reduce cGMP levels, like certain phosphodiesterases. KT 5823 is a potent, selective inhibitor of cGMP-dependent protein kinase (PKG) (in vitro IC₅₀ = 234 nM).¹ KT 5823 is cell-permeable and is often used in intact cells to assess the role of PKG in signaling, although there are cases where it poorly inhibits PKG in cells.^[2] KT 5823 is a weak inhibitor of PKC (K_i = 4 μM) and PKA (K_i >10 μM).^[1]

Reference:

- [1]. Hidaka, H., and Kobayashi, R. Pharmacology of protein kinase inhibitors. Annu. Rev. Pharmacol. Toxicol. 32, 377-397 (1992).
- [2]. Burkhardt, M., Glazova, M., Gambaryan, S., et al. KT5823 inhibits cGMP-dependent protein kinase activity in vitro but not in intact human platelets and rat mesangial cells. J. Biol. Chem. 275(43), 33536-33541 (2000).

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