

**Product Name:** KT 5823

**Catalog No.:** 1289

**Batch No.:** 6

CAS Number: 126643-37-6

IUPAC Name: (9S,10R,12R)-2,3,9,10,11,12-Hexahydro-10-methoxy-2,9-dimethyl-1-oxo-9,12-epoxy-1*H*-diindolo[1,2,3-*fg*:3',2',1'-*kl*]pyrrolo[3,4-*l*][1,6]benzodiazocine-10-carboxylic acid, methyl ester

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>29</sub>H<sub>25</sub>N<sub>3</sub>O<sub>5</sub>·1/4H<sub>2</sub>O

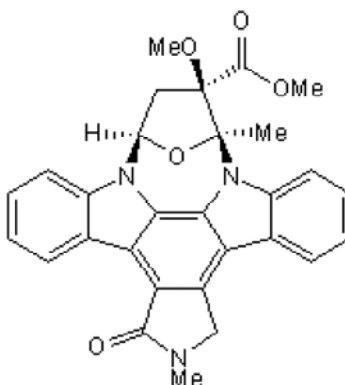
**Batch Molecular Weight:** 500.03

**Physical Appearance:** White solid

**Solubility:** DMSO to 50 mM

**Storage:** Desiccate at -20°C

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.58 (Dichloromethane:Methanol [97:3])

**HPLC:** Shows 96.8% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	69.66	5.14	8.4
Found	69.62	5.05	8.27

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**Description:**

KT 5823 is a selective inhibitor of protein kinase G ( $K_i$  values are 0.23, 4 and > 10  $\mu$ M for inhibition of PKG, PKC and PKA respectively). Inhibits SNP-stimulated PKG activity with an  $IC_{50}$  of 60 nM in dispersed smooth muscle cells and has little effect on PKA activity at concentrations of up to 10  $\mu$ M.

**Physical and Chemical Properties:**

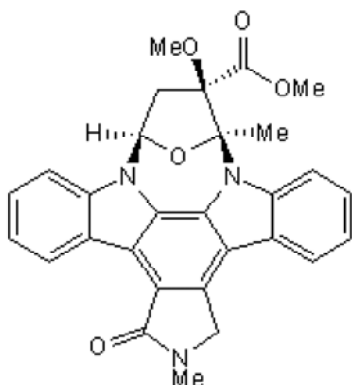
Batch Molecular Formula:  $C_{29}H_{25}N_3O_5 \cdot \frac{1}{4}H_2O$

Batch Molecular Weight: 500.03

Physical Appearance: White solid

**Minimum Purity:**  $\geq 95\%$

**Batch Molecular Structure:**



**Storage:** Desiccate at -20°C

**Solubility & Usage Info:**

DMSO to 50 mM

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Smolenski et al** (1998) Functional analysis of cGMP-dependent protein kinases I and II as mediators of NO/cGMP effects. *Naunyn Schmiedebergs Arch.Pharmacol.* **358** 134. PMID: 9721015.

**Murthy and Makhlof** (1995) Interaction of cA-kinase and cG-kinase in mediating relaxation of dispersed smooth muscle cells. *Am.J.Physiol.* **268** C171. PMID: 7840145.

**Gadbois et al** (1992) Multiple kinase arrest points in the G<sub>1</sub> phase of nontransformed mammalian cells are absent in transformed cells. *Proc.Natl.Acad.Sci.U.S.A.* **89** 8626. PMID: 1528872.

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