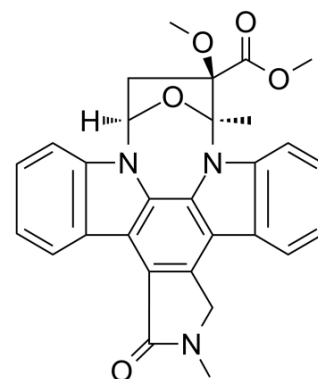


## KT5823

Cat. No.:	HY-N6791		
CAS No.:	126643-37-6		
Molecular Formula:	C <sub>29</sub> H <sub>25</sub> N <sub>3</sub> O <sub>5</sub>		
Molecular Weight:	495.53		
Target:	PKA; PKC; Bacterial; Apoptosis; Antibiotic		
Pathway:	Protein Tyrosine Kinase/RTK; Stem Cell/Wnt; Epigenetics; TGF-beta/Smad; Anti-infection; Apoptosis		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



### BIOLOGICAL ACTIVITY

#### Description

KT5823, a selective the cGMP-dependent protein kinase (PKG) inhibitor with an  $K_i$  value of 0.23  $\mu\text{M}$ , it also inhibits PKA and PKC with  $K_i$  values of 10  $\mu\text{M}$  and 4  $\mu\text{M}$ , respectively<sup>[1]</sup>. KT5823 is a staurosporine-related protein kinase inhibitor, increases thyroid-stimulating hormone-induced ( $\text{Na}^+/\text{I}^-$  symporter) NIS expression, and iodide uptake in thyroid cells<sup>[2]</sup>. KT5823 arrests cells after the G0/G1 boundary and causes increases in the levels of apoptotic DNA fragmentation<sup>[3]</sup>.

#### IC<sub>50</sub> & Target

PKA	PKC
10 $\mu\text{M}$ (Ki)	4 $\mu\text{M}$ (Ki)

### REFERENCES

- [1]. Gadbois DM, et al. Multiple kinase arrest points in the G1 phase of nontransformed mammalian cells are absent in transformed cells. Proc Natl Acad Sci U S A. 1992 Sep 15;89(18):8626-30.
- [2]. Wyatt TA, et al. KT5823 activates human neutrophils and fails to inhibit cGMP-dependent protein kinase phosphorylation of vimentin. Res Commun Chem Pathol Pharmacol. 1991 Oct;74(1):3-14.
- [3]. Chan SL, et al. Guanylyl cyclase inhibitors NS2028 and ODQ and protein kinase G (PKG) inhibitor KT5823 trigger apoptotic DNA fragmentation in immortalized uterine epithelial cells: anti-apoptotic effects of basal cGMP/PKG. Mol Hum Reprod. 2003 Dec;9(12):775-83.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA