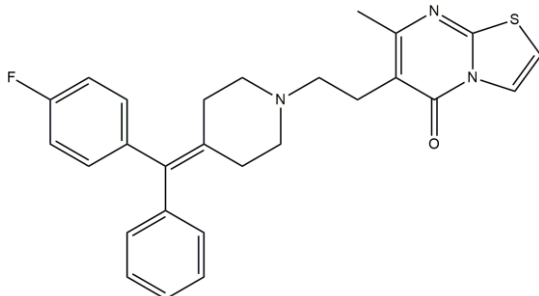


# R-59-022

**ALTERNATE NAMES:** 6-[2-[4-[(4-fluorophenyl)-phenylmethylidene]piperidin-1-yl]ethyl]-7-methyl-[1,3]thiazolo[3,2-a]pyrimidin-5-one; Diacylglycerol Kinase Inhibitor I

**CATALOG #:** B2975-1 1 mg  
B2975-5 5 mg

**STRUCTURE:**



**MOLECULAR FORMULA:** C<sub>27</sub>H<sub>26</sub>FN<sub>3</sub>OS

**MOLECULAR WEIGHT:** 459.58

**CAS NUMBER:** 93076-89-2

**APPEARANCE:** A crystalline solid

**PURITY:** ≥98%

**SOLUBILITY:** ~5 mg/ml in ethanol and DMSO  
~20 mg/ml in DMF

**DESCRIPTION:** R-59-022 is an inhibitor of Diacylglycerol (DAG) kinase with an IC<sub>50</sub> of 2.8 μM. The inhibition of Diacylglycerol kinase results in increased DAG-dependent protein kinase C (PKC) activity and potentiates aggregation of thrombin-stimulated platelets. R59022 inhibits thromboxane A(2) analogue U46619-induced contractions in mouse aorta and porcine coronary artery at concentrations of 0.1 μM to 30 μM. R-59-022 (10 μM) induces apoptosis in glioblastoma cells without being toxic to non-cancerous cells.

**STORAGE TEMPERATURE:** -20°C

**REFERENCES:**

1. Nobe, K., Miyatake, M., Nobe, H., et al. Novel diacylglycerol kinase inhibitor selectively suppressed an U46619-induced enhancement of mouse portal vein contraction under high glucose conditions. *British Journal of Pharmacology* 143(1), 166-179 (2004).
2. de Chaffoy de Courcelles, D.C., Roevens, P., and Van Belle, H. R 59 022, a diacylglycerol kinase inhibitor. Its effect on diacylglycerol and thrombin-induced C kinase activation in the intact platelet. *The Journal of Biological Chemistry* 260(29), 15762-15770 (1985).
3. Dominguez, C.L., Floyd, D.H., Xiao, A., et al. Diacylglycerol kinase a is a critical signaling node and novel therapeutic target in glioblastoma and other cancers. *Cancer Discov.* 3(7), 782-797 (2013).
4. Nunn, D.L., and Watson, S.P. A diacylglycerol kinase inhibitor, R59022, potentiates secretion by and aggregation of thrombin-stimulated human platelets. *Biochemistry Journal* 243(3), 809-813 (1987).

**HANDLING:** Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

**RELATED PRODUCTS:**

Bryostatin 1 (Cat. No. 2513)  
 Calphostin C (Cat. No. 2611)  
 (-)-Indolactam V (Cat. No. 2197)  
 Ingenol 3-angelate (Cat. No. 2593)  
 Phorbol-12-myristate 13-acetate (PMA) (Cat. No. 1544)

**DISCLAIMER:** **FOR RESEARCH USE ONLY! Not to be used on humans.**