

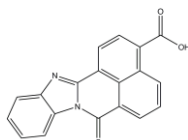
**PRODUCT: STO-609**

**ALTERNATE NAMES:** STO-609; STO 609; STO609; 7-oxo-7H-benzo[de]benzo[4,5]imidazo[2,1-a]isoquinoline-3-carboxylic acid

**CATALOG #:** B1609-5, -25

**AMOUNT:** 5 mg, 25 mg

**STRUCTURE:**



**MOLECULAR FORMULA:** C<sub>19</sub>H<sub>10</sub>N<sub>2</sub>O<sub>3</sub>

**MOLECULAR WEIGHT:** 314.3

**CAS NUMBER:** 52029-86-4

**APPEARANCE:** Yellow solid powder

**SOLUBILITY:** DMSO

**PURITY:** ≥98% by HPLC

**STORAGE:** Store at -20°C. Protect from air and light

**DESCRIPTION:** STO-609 is a cell-permeable and reversible naphthoyl-fused benzimidazole compound that acts as a highly selective, potent, ATP-competitive inhibitor of Ca<sup>2+</sup>/calmodulin-dependent protein kinase kinase (CaM-KK) (IC<sub>50</sub> = 80 ng/ml and 15 ng/ml for CaM-KK $\alpha$  and CaM-KK $\beta$  isoforms, respectively). STO-609 is highly selective for CaM-KK without any significant effect on the downstream CaM kinases (CaM-KI and -IV), and the IC(50) value of the compound against CaM-KII is approximately 10 microg/ml.

**REFERENCES:**

1. Gerner L et al., Using the fluorescent properties of STO-609 as a tool to assist structure-function analyses of recombinant CaMKK2. *Biochem Biophys Res Commun.* 2016 Jul 22;476(2):102-7.
- 2: Fujiwara Y et al., Analysis of Distinct Roles of CaMKK Isoforms Using STO-609-Resistant Mutants in Living Cells. *Biochemistry.* 2015 Jun 30;54(25):3969-77.

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

**RELATED PRODUCTS:**

- Berbamine dihydrochloride (2520)
- KN-62, (2495)
- KN-93 (2524)
- KN-93, Water-Soluble (1909)

**USAGE:** *FOR RESEARCH USE ONLY! Not to be used in humans*