

**Product Name:** KU 60019

**Catalog No.:** 4176

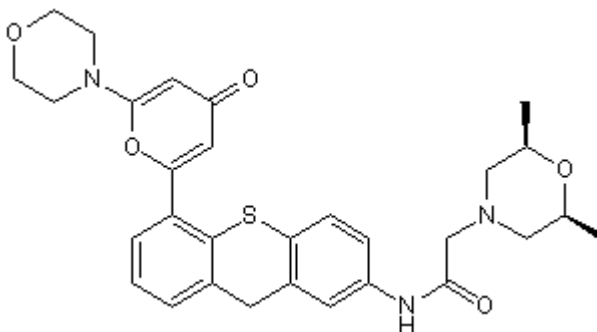
**Batch No.:** 1

CAS Number: 925701-46-8

IUPAC Name: (2*R*,6*S*-rel)-2,6-Dimethyl-*N*-[5-[6-(4-morpholinyl)-4-oxo-4*H*-pyran-2-yl]-9*H*-thioxanthen-2-yl]-4-morpholineacetamide

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>30</sub>H<sub>33</sub>N<sub>3</sub>O<sub>5</sub>S.H<sub>2</sub>O  
**Batch Molecular Weight:** 565.69  
**Physical Appearance:** Yellow solid  
**Solubility:** DMSO to 100 mM  
ethanol to 100 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.33 (Ethyl acetate:Methanol [92:8])  
**HPLC:** Shows 98.4% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon Hydrogen Nitrogen		
Theoretical	63.7	6.24	7.43
Found	63.72	6.13	7.38

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**Description:**

Potent ATM kinase inhibitor (IC<sub>50</sub> = 6.3 nM). Exhibits little to no nonspecific target effects against a panel of 229 protein kinases; displays similar target selectivity to KU 55933 (Cat. No. 3544). Inhibits migration and invasion of human glioma cells in vitro.

**Physical and Chemical Properties:**

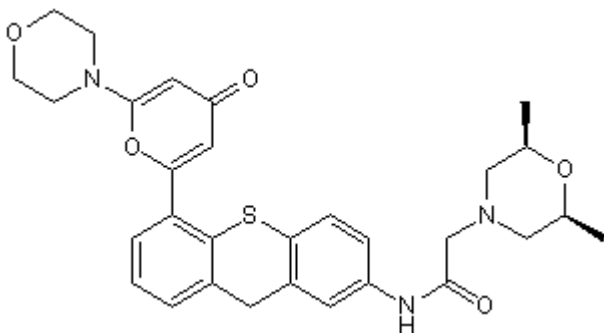
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Batch Molecular Weight: 565.69

Physical Appearance: Yellow solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**References:**

**Golding et al** (2009) Improved ATM kinase inhibitor KU-60019 radiosensitizes glioma cells, compromises insulin, AKT and ERK prosurvival signaling, and inhibits migration and invasion. *Mol.Cancer Ther.* **8** 2894. PMID: 19808981.

**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 100 mM  
ethanol to 100 mM

**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.

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