# **Certificate of Analysis**

## Product Name:

CAS Number: 1198097-97-0 IUPAC Name: Z-5-(4-Hydroxybenzylidene)-2-imino-1,3-thiazolidin-4-one

# 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula: Batch Molecular Weight: Physical Appearance:** Solubility: Storage:

**Batch Molecular Structure:** 

 $C_{10}H_8N_2O_2S.^3/_4H_2O$ 233.76 Pale yellow solid DMSO to 100 mM Store at +4°C

## 2. ANALYTICAL DATA

HPLC: <sup>1</sup>H NMR: Mass Spectrum: Microanalysis:

Shows 99.9% purity Consistent with structure Consistent with structure Carbon Hydrogen Nitrogen Theoretical 51.38 4.1 11.98 51.36

3.79

11.97

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

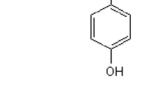
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Catalog No.: 3190 Batch No.: 2

TOCRIS a biotechne Mirin

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Found



# TOCRIS a biotechne brand

# **Product Information**

## www.tocris.com

Print Date: Jan 13th 2022

### Product Name: Mirin

Catalog No.: 3190

Batch No.: 2

CAS Number: 1198097-97-0 IUPAC Name: Z-5-(4-Hydroxybenzylidene)-2-imino-1,3-thiazolidin-4-one

#### **Description:**

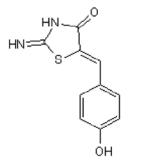
Mirin is a Mre11-Rad50-Nbs1 (MRN)-ATM pathway inhibitor that blocks the 3' and 5' exonuclease activity associated with Mre11. Prevents ATM activation in response to double strand breaks (IC<sub>50</sub> = 12  $\mu$ M) and induces G<sub>2</sub> cell cycle arrest. Also blocks homology-directed repair in vitro.

#### **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>10</sub>H<sub>8</sub>N<sub>2</sub>O<sub>2</sub>S.<sup>3</sup>/<sub>4</sub>H<sub>2</sub>O Batch Molecular Weight: 233.76 Physical Appearance: Pale yellow solid

### Minimum Purity: ≥99%

### **Batch Molecular Structure:**



#### **Storage:** Store at +4°C

Solubility & Usage Info: DMSO 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.

#### Other Information:

In the literature (**Garner** *et al* (2009) Nat.Chem.Biol. **5** 129) Mirin is reported as an orange solid. However, this coloration was found to have been caused by a brightly colored impurity. Upon further purification, Mirin was obtained as a pale yellow solid.

#### **References:**

Garner et al (2009) Corrected structure of mirin, a small-molecule inhibitor of the Mre11-Rad50-Nbs1 complex. Nat.Chem.Biol. 5 129. PMID: 19219009.

**Dupre** *et al* (2008) A forward chemical genetic screen reveals an inhibitor of the Mre11-Rad50-Nbs1 complex. Nat.Chem.Biol. **4** 119. PMID: 18176557.

Stivers (2008) Small molecule versus DNA repair mechanisms. Nat.Chem.Biol. 4 86. PMID: 18202674.

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