

# **Certificate of Analysis**

Print Date: Mar 8th 2023

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Product Name: BIO-acetoxime Catalog No.: 3874 Batch No.: 2

CAS Number: 667463-85-6

IUPAC Name: (2'Z,3'E)-6-Bromoindirubin-3'-acetoxime

# 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>18</sub>H<sub>12</sub>BrN<sub>3</sub>O<sub>3</sub>

Batch Molecular Weight: 398.21

Physical Appearance: Purple solid

**Solubility:** DMSO to 20 mM

Storage: Store at +4°C

**Batch Molecular Structure:** 

#### 2. ANALYTICAL DATA

**HPLC:** Shows 98.2% purity

<sup>1</sup>H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 54.29 3.04 10.55 Found 54.04 2.94 10.36

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# **Product Information**

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IUPAC Name: (2'Z,3'E)-6-Bromoindirubin-3'-acetoxime

#### **Description:**

BIO-acetoxime is a selective GSK-3 $\alpha$ / $\beta$  inhibitor (IC<sub>50</sub> values are 0.01, 2.4, 4.3 and 63  $\mu$ M for GSK-3 $\alpha$ / $\beta$ , CDK5/p25, CDK2/cyclin A and CDK1/cyclin B respectively). Induces Wnt signaling and inhibits CD8+ T cell effector differentiation.

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

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Batch Molecular Weight: 398.21 Physical Appearance: Purple solid

Minimum Purity: ≥98%

#### **Batch Molecular Structure:**

**Storage:** Store at +4°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

### Solubility & Usage Info:

DMSO to 20 mM

When purched as a 1mg unit, this product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

## 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.

#### References:

**Gattinoni** et al (2009) Wnt signaling arrests T cell differentiation and generates CD8+ memory stem cells. Nat.Med. **15** 808. PMID: 19525962.

**Polychronopoulos** *et al* (2004) Structural basis for the synthesis of indirubins as potent and selective inhibitors of glycogen synthase kinase-3 and cyclin-dependent kinases. J.Med.Chem. **47** 935. PMID: 14761195.

Meijer et al (2003) GSK-3-selective inhibitors derived from Tyrian purple indirubins. Chem.Biol. 10 1255. PMID: 14700633.