

Certificate of Analysis

Print Date: Nov 22nd 2018

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Product Name: BIO Catalog No.: 3194 Batch No.: 3

CAS Number: 667463-62-9

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{16}H_{10}BrN_3O_6.^3/4H_2O$

Batch Molecular Weight: 369.68

Physical Appearance: Red solid

Solubility: DMSO to 10 mM

ethanol to 10 mM

Storage: Store at +4°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99.1% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 51.98 3.14 11.37 Found 52.13 2.88 11.17



Product Information

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

Description:

Potent ATP-competitive glycogen synthase kinase-3 (GSK-3) inhibitor (IC_{50} = 5 nM). Also inhibits cyclin-dependent kinases (cdks; IC_{50} values are

Physical and Chemical Properties:

Batch Molecular Formula: C₁₆H₁₀BrN₃O₆.³/₄H₂O

Batch Molecular Weight: 369.68 Physical Appearance: Red 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 10 mM ethanol to 10 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.

References:

Jorda et al (2018) How selective are pharmacological inhibitors of cell-cycle-regulating cyclin-dependent kinases? J.Med.Chem. 61 9105. PMID: 30234987.

Tseng et al (2006) The GSK-3 inhibitor BIO promotes proliferation in mammalian cardiomyocytes. Chem.Biol. **13** 957. PMID: 16984885.

Polychronopoulos *et al* (2004) Structural basis for the synthesis of indirubins as potent and selective inhibtors 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.