Product Information

**Indirubin-3’-oxime**

Catalog Number I0404

Store at Room Temperature

CAS RN 160807-49-8

Synonym: Indirubin-3’-monoxime

**Product Description**

Molecular Formula: C_{16}H_{11}N_{3}O_{2}

Formula Weight: 277.28

Indirubin is the active ingredient of the traditional Chinese medicine Danggui Longhui Wan, a mixture of plants used in the treatment of chronic diseases such as myelocytic leukemias. Synthetic indirubin and its analogues were found to be potent inhibitors (IC_{50} = 50–100 nM) of cyclin-dependent kinases (CDKs).\(^1\) Indirubin interacts with the ATP-binding site on the enzyme through van der Waals interactions and three hydrogen bonds. Other studies have shown indirubins are also powerful inhibitors (IC_{50} = 5–50 nM) of glycogen synthase kinase-3β (GSK-3β). Indirubins also bind to GSK-3β via the ATP-binding site.\(^2\)

Indirubin-3’-oxime inhibits the proliferation of a wide range of cells by arresting the cells in the G\(_2\)/M phase of the cell cycle. This may be due to inhibition of the cyclin B-CDK1 complex.\(^1,3\)

**Precautions and Disclaimer**

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

**Preparation Instructions**

Indirubin-3’-oxime is soluble in DMSO at 18 mg/ml. It is slightly soluble in water at 0.25 mg/ml.

**Storage/Stability**

Store the product at room temperature.

**References**