

# Certificate of Analysis

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**Product Name:** Ro 5-3335

**Catalog No.:** 4694

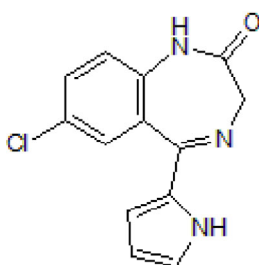
**Batch No.:** 4

**CAS Number:** 30195-30-3

**IUPAC Name:** 7-Chloro-1,3-dihydro-5-(1*H*-pyrrol-2-yl)-2*H*-1,4-benzodiazepin-2-one

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>13</sub>H<sub>10</sub>ClN<sub>3</sub>O  
**Batch Molecular Weight:** 259.69  
**Physical Appearance:** Off White solid  
**Solubility:** DMSO to 100 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 99.9% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon Hydrogen Nitrogen		
Theoretical	60.13	3.88	16.18
Found	60.08	3.87	16.11

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

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**Description:**

Ro 5-3335 is a core binding factor (CBF) inhibitor; preferentially kills human leukemia cell lines with CBF fusion proteins (IC<sub>50</sub> = 1.1 μM). Represses RUNX1/CBFβ-dependent transactivation in reporter assays and inhibits transcriptional regulation by RUNX1 and CBFβ. Reduces leukemia burden in a mouse model. Attenuates RUNX1-dependent hematopoiesis in zebrafish embryos. Also a Tat antagonist; inhibits HIV-1 replication in vitro.

**Physical and Chemical Properties:**

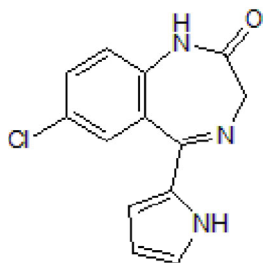
Batch Molecular Formula: C<sub>13</sub>H<sub>10</sub>ClN<sub>3</sub>O.

Batch Molecular Weight: 259.69

Physical Appearance: Off White solid

**Minimum Purity:** ≥98%

**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. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**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:**

**Cunningham *et al*** (2012) Identification of benzodiazepine Ro5-3335 as an inhibitor of CBF leukemia through quantitative high throughput screen against RUNX1-CBFβ interaction. *Proc.Natl.Acad.Sci.USA* **109** 14592. PMID: 22912405.

**Okuda *et al*** (2001) RUNX1/AML1: a central player in hematopoiesis. *Int. J. Hematol.* **74** 252. PMID: 11721959.

**Cupelli *et al*** (1995) The human immunodeficiency virus type 1 Tat antagonist, Ro 5-3335, predominantly inhibits transcription initiation from the viral promoter. *J.Virol.* **69** 2640. PMID: 7884917.

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