

## Certificate of Analysis

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**Product Name:** ML 228

**Catalog No.:** 4565

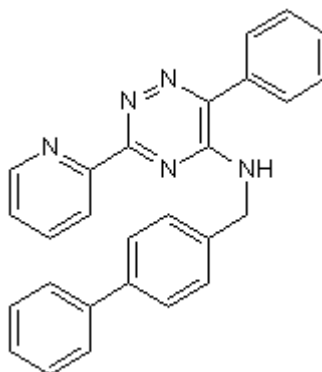
**Batch No.:** 1

CAS Number: 1357171-62-0

IUPAC Name: *N*-([1,1'-Biphenyl]-4-ylmethyl)-6-phenyl-3-(2-pyridinyl)-1,2,4-triazin-5-amine

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>27</sub>H<sub>21</sub>N<sub>5</sub>  
**Batch Molecular Weight:** 415.49  
**Physical Appearance:** Brown solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 20 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.7% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	78.05	5.09	16.86
Found	78.07	5.14	16.84

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

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**Description:**

HIF pathway activator (EC<sub>50</sub> values are 1.23 and 1.4 μM for HRE gene reporter assay and HIF-1α nuclear translocation assay respectively); acts via chelation of iron, independently of PHD. Also exhibits > 80% inhibition of the human A<sub>3</sub> receptor, dopamine transporter, μ receptor, hERG and 5-HT<sub>2B</sub> receptor, and rat sodium channel site 2, at a concentration of 10 μM.

**Physical and Chemical Properties:**

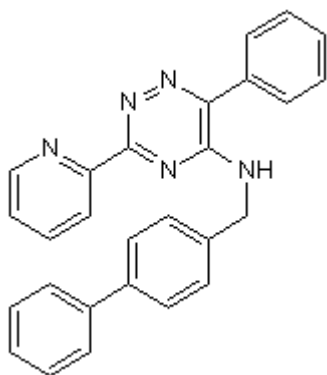
Batch Molecular Formula: C<sub>27</sub>H<sub>21</sub>N<sub>5</sub>

Batch Molecular Weight: 415.49

Physical Appearance: Brown solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**References:**

**Theriault et al** (2012) Discovery of a new molecular probe ML228: an activator of the hypoxia inducible factor (HIF) pathway. *Bioorg.Med.Chem.Lett.* **22** 76. PMID: 22172704.

**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 20 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.

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