

## Certificate of Analysis

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**Product Name:** ZM 449829

**Catalog No.:** 1366

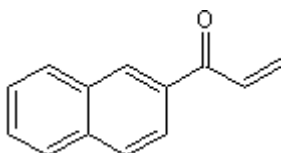
**Batch No.:** 3

CAS Number: 4452-06-6

IUPAC Name: 1-(2-Naphthalenyl)-2-propen-1-one

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>13</sub>H<sub>10</sub>O  
**Batch Molecular Weight:** 182.22  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
**Storage:** Desiccate at -20°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.35 (Ethyl acetate:Hexane [20:1])  
**Melting Point:** Between 43 - 44°C  
**HPLC:** Shows >98.9% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	85.69	5.53	
Found	85.26	5.49	

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

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**Description:**

Potent, selective inhibitor of Janus tyrosine kinase 3 (JAK3) which binds competitively to the JAK3 ATP site. pIC<sub>50</sub> values are 6.8, 5.0, 4.7, and < 5.0 for JAK3, EGFR, JAK1 and CDK4 respectively. Inhibits STAT-5 phosphorylation and T cell proliferation.

**Physical and Chemical Properties:**

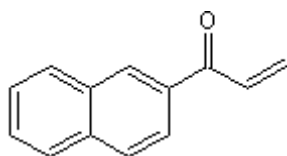
Batch Molecular Formula: C<sub>13</sub>H<sub>10</sub>O

Batch Molecular Weight: 182.22

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Desiccate at -20°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 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. 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:**

**Brown et al** (2000) Naphthyl ketones: a new class of janus kinase 3 inhibitors *Bioorg.Med.Chem.Lett.* **10** 575. PMID: 10741557.

**Orange et al** (2011) IL-2 induces a WAVE2-dependent pathway for actin reorganization that enables WASp-independent human NK cell function. *J.Clin.Invest.* **121** 1535. PMID: 21383498.

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