

## Certificate of Analysis

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**Product Name:** Galiellalactone

**Catalog No.:** 6218

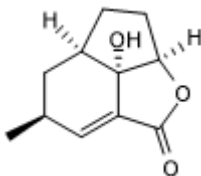
**Batch No.:** 1

CAS Number: 133613-71-5

IUPAC Name: (4*S*,5*aR*,7*aR*,7*bS*)-5,5*a*,6,7,7*a*,7*b*-Hexahydro-7*b*-hydroxy-4-methylindeno[1,7-*bc*]furan-2(4*H*)-one

### 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>11</sub> H <sub>14</sub> O <sub>3</sub>
<b>Batch Molecular Weight:</b>	194.23
<b>Physical Appearance:</b>	White solid
<b>Solubility:</b>	DMSO to 5 mM ethanol to 5 mM
<b>Storage:</b>	Store at -20°C
<b>Batch Molecular Structure:</b>	



### 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows >99% purity
<b><sup>1</sup>H NMR:</b>	Consistent with structure
<b>Mass Spectrum:</b>	Consistent with structure

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

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**Description:**

STAT3 inhibitor. Irreversibly binds STAT3 and inhibits binding to DNA. Inhibits IL-6-dependent JAK/STAT signaling. Induces cell-cycle arrest in G<sub>2</sub>/M phase and apoptosis in androgen-insensitive prostate cancer cells via activation of ATM/ATR pathway. Also destabilizes microtubules and inhibits cell migration. Exhibits anticancer effects in a mouse tumor xenograft model.

**Physical and Chemical Properties:**

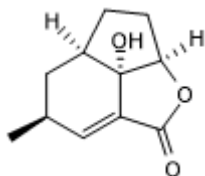
Batch Molecular Formula: C<sub>11</sub>H<sub>14</sub>O<sub>3</sub>

Batch Molecular Weight: 194.23

Physical Appearance: White solid

**Minimum Purity:** >95%

**Batch Molecular Structure:**



**References:**

**Garcia et al** (2016) Galiellalactone induces cell cycle arrest and apoptosis through the ATM/ATR pathway in prostate cancer cells. *Oncotarget* **7** 4490. PMID: 26683224 .

**Don-Doncow et al** (2014) Galiellalactone is a direct inhibitor of the transcription factor STAT3 in prostate cancer cells. *J.Biol.Chem.* **289** 15969. PMID: 24755219.

**Weilder et al** (2000) Inhibition of interleukin-6 signaling by galiellalactone. *FEBS Lett.* **484** 1. PMID: 11056211.

**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 5 mM

ethanol to 5 mM

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**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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