

## Certificate of Analysis

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**Product Name:** L-690,330

**Catalog No.:** 0681

**Batch No.:** 3

CAS Number: 142523-38-4

IUPAC Name: [1-(4-Hydroxyphenoxy)ethylidene]bisphosphonic acid

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>8</sub>H<sub>12</sub>O<sub>8</sub>P<sub>2</sub>·1<sup>3</sup>/<sub>4</sub>H<sub>2</sub>O

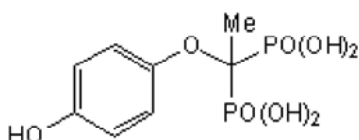
**Batch Molecular Weight:** 329.65

**Physical Appearance:** White solid

**Solubility:** water to 20 mM

**Storage:** Store at RT

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	29.15	4.74	
Found	28.99	4.8	

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

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**Description:**

L-690,330 is a potent inhibitor of inositol monophosphatase; stable to hydrolysis. Induces autophagy in COS-7 cells independently of mTOR inhibition.

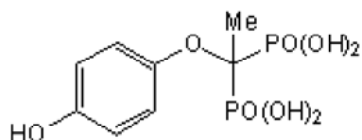
**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>8</sub>H<sub>12</sub>O<sub>8</sub>P<sub>2</sub>·1¼H<sub>2</sub>O

Batch Molecular Weight: 329.65

Physical Appearance: White solid

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

water 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.

**Licensing Information:**

Sold with the permission of Merck Sharp and Dohme Ltd.

**References:**

**Fleming et al** (2011) Chemical modulators of autophagy as biological probes and potential therapeutics. *Nat.Chem.Biol.* **7** 9. PMID: 21164513.

**Sarkar et al** (2005) Li induces autophagy by inhibiting inositol monophosphatase. *J.Cell.Biol.* **170** 1101. PMID: 16186256.

**Atack et al** (1994) Effects of L-690,488, a pro-drug of the bisphosphonate inositol monophosphatase inhibitor L-690,330, on phosphatidylinositol cycle markers. *J.Pharmacol.Exp.Ther.* **270** 70. PMID: 8035344.

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