

# Certificate of Analysis

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**Product Name:** VO-OHpic

**Catalog No.:** 3591

**Batch No.:** 1

CAS Number: 675848-25-6

IUPAC Name: (OC-6-45)-Aqua(3-hydroxy-2-pyridinecarboxylato-κ-N<sup>1</sup>,κO<sup>2</sup>)[3-(hydroxy-κO)-2-pyridinecarboxylato(2-)-κO<sup>2</sup>] oxovanadate(1-),hydrogen

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>12</sub>H<sub>10</sub>N<sub>2</sub>O<sub>8</sub>V.2½H<sub>2</sub>O

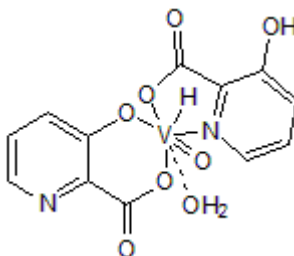
**Batch Molecular Weight:** 406.2

**Physical Appearance:** Green solid

**Solubility:** DMSO to 100 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 99.4% purity

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	35.48	3.72	6.9
Found	35.53	3.75	6.86

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

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**Description:**

Potent inhibitor of PTEN (phosphatase and tensin homolog) (IC<sub>50</sub> = 35 nM). Displays selectivity for PTEN over cysteine-based phosphatases such as SopB, MTM, PTPβ and SAC (IC<sub>50</sub> values are 588 nM, 4.03, 57.5 and >10 μM respectively). Increases PIP<sub>2</sub> and PIP<sub>3</sub> levels; also increases Akt translocation in NIH/3T3 fibroblasts. Blocks the immunosuppressant activity of IDO-activated T<sub>regs</sub>. Promotes antitumor inflammatory response in combination with immunotherapy and enhances anticancer chemotherapy in tumor-bearing mice.

**Physical and Chemical Properties:**

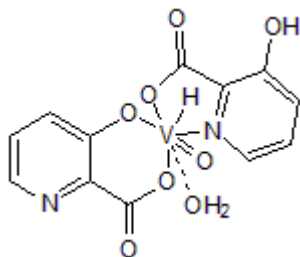
Batch Molecular Formula: C<sub>12</sub>H<sub>10</sub>N<sub>2</sub>O<sub>8</sub>V.2½H<sub>2</sub>O

Batch Molecular Weight: 406.2

Physical Appearance: Green solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**References:**

**Rosivatz et al** (2006) A small-molecule inhibitor for phosphatase and tensin homologue deleted on chromosome 10 (PTEN). ACS Chem.Biol. **1** 780. PMID: 17240976.

**Sharma et al** (2015) The PTEN pathway in Tregs is a critical driver of the suppressive tumor microenvironment. Sci.Adv. **1** e1500845. PMID: 26601142.

**Storage:** Store 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.

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