

**Product Name:** VH 032

**Catalog No.:** 7774

**Batch No.:** 1

CAS Number: 1448188-62-2

IUPAC Name: (2*S*,4*R*)-1-((*S*)-2-Acetamido-3,3-dimethylbutanoyl)-4-hydroxy-*N*-(4-(4-methylthiazol-5-yl)benzyl)pyrrolidine-2-carboxamide

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>24</sub>H<sub>32</sub>N<sub>4</sub>O<sub>4</sub>S.1½H<sub>2</sub>O

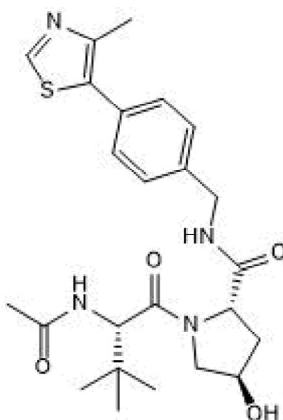
**Batch Molecular Weight:** 495.12

**Physical Appearance:** White solid

**Solubility:** DMSO to 100 mM  
ethanol to 100 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.9% purity

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	58.22	7.02	11.32
Found	57.51	7.09	11.04

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**Description:**

VH 032 is a inhibitor of E3 ubiquitin ligase VHL ( $K_d = 185$  nM). Blocks interaction between VHL and HIF- $\alpha$  downstream of HIF- $\alpha$  hydroxylation, initiating hypoxic response. VH 032 treatment causes dose dependent upregulation of HIF-target genes including CA9, GLUT1 and PHD2 in different cell lines. Cell permeable.

**Physical and Chemical Properties:**

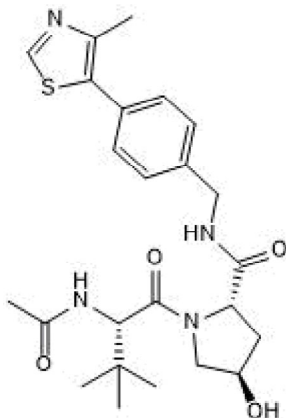
Batch Molecular Formula:  $C_{24}H_{32}N_4O_4S \cdot 1\frac{1}{4}H_2O$

Batch Molecular Weight: 495.12

Physical Appearance: White solid

**Minimum Purity:**  $\geq 98\%$

**Batch Molecular Structure:**



**Storage:** Store at  $-20^{\circ}C$

**Solubility & Usage Info:**

DMSO to 100 mM  
ethanol 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  $45-60^{\circ}C$  water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**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  $-20^{\circ}C$  or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Frost et al** (2016) Potent and selective chemical probe of hypoxic signalling downstream of HIF- $\alpha$  hydroxylation via VHL inhibition. *Nat. Commun* **7** 13312. PMID: 27811928.

**Galdeano et al** (2014) Structure-guided design and optimization of small molecules targeting the protein-protein interaction between the von Hippel-Lindau (VHL) E3 ubiquitin ligase and the hypoxia inducible factor (HIF) alpha subunit with in vitro nanomolar affinities. *J. Med. Chem* **57** 8657. PMID: 25166285.

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