

# VE-821

**Catalog No: tcsc0238**



## Available Sizes

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**Size:** 5mg

**Size:** 10mg

**Size:** 50mg

**Size:** 100mg



## Specifications

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**CAS No:**

1232410-49-9

**Formula:**

$C_{18}H_{16}N_4O_3S$

**Pathway:**

Cell Cycle/DNA Damage;PI3K/Akt/mTOR

**Target:**

ATM/ATR;ATM/ATR

**Purity / Grade:**

>98%

**Solubility:**

10 mM in DMSO

**Observed Molecular Weight:**

368.41

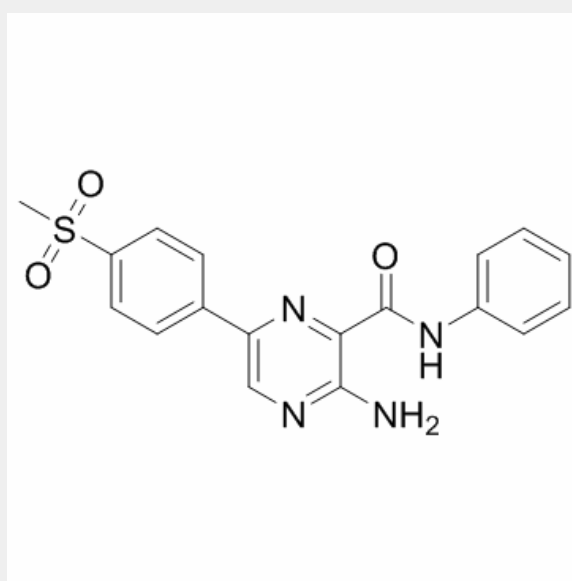
## Product Description

VE-821 is a potent ATP-competitive inhibitor of **ATR** with **K<sub>i</sub>/IC<sub>50</sub>** of 13 nM/26 nM.

IC50 & Target: Ki: 13 nM (ATR)<sup>[1]</sup>

IC50: 26 nM (ATR)<sup>[2]</sup>

**In Vitro:** VE-821 shows excellent selectivity for ATR with minimal cross-reactivity against the related PIKKs ATM, DNA-PK, mTOR and PI3K $\gamma$  ( $K_i$ s of 16  $\mu$ M, 2.2  $\mu$ M, >1  $\mu$ M and 3.9  $\mu$ M, respectively) and against a large panel of unrelated protein kinases<sup>[1]</sup>. VE-821 (compound 27) also inhibits ATM and DNA-PK with  $IC_{50}$  of >8  $\mu$ M, and 4.4  $\mu$ M, respectively<sup>[2]</sup>. VE-821 significantly enhances the sensitivity of PSN-1, MiaPaCa-2 and primary PancM pancreatic cancer cells to radiation and Gemcitabine under both normoxic and hypoxic conditions. ATR inhibition by VE-821 leads to inhibition of radiation-induced G<sub>2</sub>/M arrest in cancer cells. In both PSN-1 and MiaPaCa-2 cells, 1  $\mu$ M VE-821 inhibits phosphorylation of Chk1 (Ser 345) after treatment with Gemcitabine (100 nM), radiation (6 Gy) or both, at 2 h post-irradiation<sup>[3]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!