产品名称：**AZD0156**
产品别名：**AZD0156**

## 生物活性：

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| **Description** | AZD0156 is an oral, potent and selective ATM inhibitor with an $IC_{50}$ of 0.58 nM. |
| **$IC_{50}$ & Target** | ATM[1] |
| **In Vitro** | AZD0156 inhibits the kinase activity of ATM and ATM-mediated signaling, prevents DNA damage checkpoint activation, and disrupts DNA damage repair, inducs tumor cell apoptosis, and leads to cell death in ATM-overexpressing tumor cells[1]. |

**Solvent&Solubility**

***In Vitro:***

**DMSO : 10 mg/mL (21.67 mM; Need ultrasonic)**

**H2O : < 0.1 mg/mL (insoluble)**

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 2.1666 mL | 10.8328 mL | 21.6657 mL |
| | 5 mM | 0.4333 mL | 2.1666 mL | 4.3331 mL |
| | 10 mM | 0.2167 mL | 1.0833 mL | 2.1666 mL |

*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液；一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。

储备液的保存方式和期限：-80°C, 6 months; -20°C, 1 month。-80°C 储存时，请在 6 个月内使用，-20°C 储存时，请在 1 个月内使用。

***In Vivo:***

请根据您的实验动物和给药方式选择适当的溶解方案。以下溶解方案都请先按照 **In Vitro** 方式配制澄清的储备液，再依次添加助溶剂：

——为保证实验结果的可靠性，澄清的储备液可以根据储存条件，适当保存；体内实验的工作液，建议您现用现配，当天使用； 以下溶剂前显示的百分比是指该溶剂在您配制终溶液中的体积占比；如在配制过程中出现沉淀、析出现象，可以通过加热和/或超声的方式助溶

1.请依序添加每种溶剂： 10% DMSO→40% PEG300 →5% Tween-80 → 45% saline

Solubility: 0.83 mg/mL (1.80 mM); Clear solution; Need ultrasonic

此方案可获得 0.83 mg/mL (1.80 mM)的澄清溶液。

以 1 mL 工作液为例，取 100 μL 8.3 mg/mL 的澄清 DMSO 储备液加到 400 μL PEG300 中，混合均匀；向上述体系中加入 50 μL Tween-80，混合均匀；然后继续加入 450 μL 生理盐水定容至 1 mL。

2.请依序添加每种溶剂： 10% DMSO→ 90% (20% SBE-β-CD in saline)

Solubility: 0.83 mg/mL (1.80 mM); Suspended solution; Need ultrasonic

此方案可获得 0.83 mg/mL (1.80 mM)的均匀悬浊液，悬浊液可用于口服和腹腔注射。

以 1 mL 工作液为例，取 100 μL 8.3 mg/mL 的澄清 DMSO 储备液加到 900 μL 20% 的 SBE-β-CD 生理盐水水溶液中，混合均匀。

3.请依序添加每种溶剂： 10% DMSO →90% corn oil

Solubility: 0.83 mg/mL (1.80 mM); Clear solution; Need ultrasonic

此方案可获得 0.83 mg/mL (1.80 mM)的澄清溶液，此方案不适用于实验周期在半个月以上的实验。

以 1 mL 工作液为例，取 100 μL 8.3 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中，混合均匀。

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| **References** | [1]. Imidazo[4,5-c]quinolin-2-one compounds and their use in treating cancer.? |
| **实验参考：** | |
| **Cell Assay** | HT29 cells are seeded into 384 well assay plates at a density of 6000 cells/well in 40 μL EMEM medium containing 1% L glutamine and 10% FBS and allowed to adhere overnight. The following morning compound of Formula (I) in 100% DMSO is added to assay plates by acoustic dispensing. After lh incubation at 37°C and 5% $C0_2$, 40 nL of 3 mM 4NQO in 100% DMSO is added to all wells by acoustic dispensing, except minimum control wells which are left untreated with 4NQO to generate a null response control. Plates are returned to the incubator for a further lh. Then cells are fixed by adding 20 μL of 3.7% formaldehyde in PBS solution and incubating for 20 mins at r.t.. Then 20 μL of 0.1% Triton XI 00 in PBS is added and incubated for 10 minutes at r.t., to permeabalise cells. Then the plates are washed once with 50 μL/well PBS, using a Biotek EL405 plate washer. [1] |
| **References** | [1]. Imidazo[4,5-c]quinolin-2-one compounds and their use in treating cancer.? |