# AZD-3463

**Cat. No.:** HY-15609

**CAS No.:** 1356962-20-3

**Molecular Formula:** $C_{24}H_{25}ClN_6O$

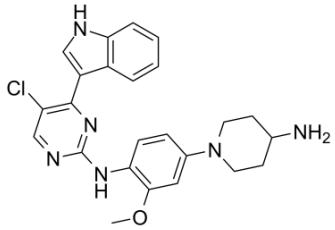
**Molecular Weight:** 448.95

**Target:** ALK; IGF-1R; Autophagy; Apoptosis

**Pathway:** Protein Tyrosine Kinase/RTK; Autophagy; Apoptosis

**Storage:**

| | | |
|---|---|---|
| Powder | -20°C | 3 years |
| | 4°C | 2 years |
| In solvent | -80°C | 6 months |
| | -20°C | 1 month |



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 20 mg/mL (44.55 mM; Need ultrasonic)

$H_2O$ : < 0.1 mg/mL (insoluble)

**Preparing Stock Solutions**

| Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 2.2274 mL | 11.1371 mL | 22.2742 mL |
| 5 mM | 0.4455 mL | 2.2274 mL | 4.4548 mL |
| 10 mM | 0.2227 mL | 1.1137 mL | 2.2274 mL |

Please refer to the solubility information to select the appropriate solvent.

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2 mg/mL (4.45 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

AZD-3463 (ALK/IGF1R inhibitor) is an orally bioavailable ALK/IGF1R inhibitor, with a $K_i$ of 0.75 nM for ALK. AZD3463 induces apoptosis and autophagy in neuroblastoma cells[1][2][3].

**$IC_{50}$ & Target**

Ki: 0.75 nM (ALK), IGF1R[1]

## REFERENCES

[1]. Lisa Drew, et al. Abstract 919: AZD3463, a novel ALK/IGF1R inhibitor, overcomes multiple mechanisms of acquired resistance to crizotinib. Cancer Res 2013;73.

[2]. Yongfeng Wang, et al. Novel ALK inhibitor AZD3463 inhibits neuroblastoma growth by overcoming crizotinib resistance and inducing apoptosis. Sci Rep. 2016; 6: 19423.

[3]. Sausan A. Moharram, et al. The ALK inhibitor AZD3463 effectively inhibits growth of sorafenib-resistant acute myeloid leukemia. Blood Cancer J. 2019 Feb; 9(2): 5.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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