Vodobatinib

Cat. No.: HY-137460

CAS No.: 1388803-90-4

Molecular Formula: $C_{27}H_{20}ClN_3O_2$

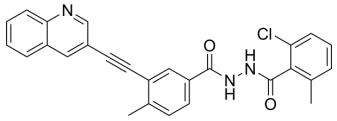
Molecular Weight: 453.92

Target: Bcr-Abl

Pathway: Protein Tyrosine Kinase/RTK

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 : 125 mg/mL (275.38 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.2030 mL	11.0152 mL	22.0303 mL
5 mM	0.4406 mL	2.2030 mL	4.4061 mL
10 mM	0.2203 mL	1.1015 mL	2.2030 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: 2.08 mg/mL (4.58 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.58 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Vodobatinib (K0706) is a potent, third generation and orally active Bcr-Abl1 tyrosine kinase inhibitor with an IC_{50} of 7 nM. Vodobatinib exhibits activity against most BCR-ABL1 point mutants, and has no activity against BCR-ABL1T315I. Vodobatinib can be used for chronic myeloid leukemia (CML) research[1][2]. Vodobatinib is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAc) with molecules containing Azide groups.

IC_{50} & Target

BCR-ABL1
7 nM (IC_{50})

In Vitro

In Ba/F3 cells expressing BCR-ABL1, BCR-ABL1$_{L248V}$, BCR-ABL1$_{Y253H}$, or BCR-ABL1$_{E255V}$, Vodobatinib (K0706; 0-2000 nM) treatment shows potent inhibition of BCR-ABL1 tyrosine autophosphorylation[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Orlando Antelope, et al. BCR-ABL1 tyrosine kinase inhibitor K0706 exhibits preclinical activity in Philadelphia chromosome-positive leukemia. Exp Hematol. 2019 Sep;77:36-40.e2.

[2]. Phase 1 Trial of Vodobatinib, a Novel Oral BCR-ABL1 Tyrosine Kinase Inhibitor (TKI): Activity in CML Chronic Phase Patients Failing TKI Therapies Including Ponatinib. Session: 632: Chronic Myeloid Leukemia: Therapy: CML: New and Beyond.

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