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产品名称：Flumatinib
产品别名：HHGV678

生物活性：

Description	Flumatinib (HHGV678) is a multi-kinase inhibitor with IC50 Values of 1.2 nM, 307.6 nM and 2662 nM for c-Abl, PDGFRβ and c-Kit respectively.
IC_{50} & Target	IC50 Value: 1.2 nM (c-Abl); 307.6 nM(PDGFRβ); 2662 nM (c-Kit)[1].
In Vitro	HH-GV-678 can predominantly inhibit the autophosphorylation of Bcr-Abl in K562 cell. In higher concentration, Flumatinib (HHGV678) can inhibit the phosphorylation of c-Kit in Mo7e cell and the phosphorylation of PDGFR in Swiss3T3 cell, however, Flumatinib (HHGV678) has no or little effect on other tyrosine kinase including EGFR, KDR, c-Src and HER2 [1]. Flumatinib (HHGV678) effectively overcame the drug resistance of certain KIT mutants with activation loop mutations (i.e., D820G, N822K, Y823D, and A829P) [2].
In Vivo	The purpose of this study was to identify the metabolites of flumatinib in CML patients, with the aim of determining the main metabolic pathways of Flumatinib (HHGV678) in humans after oral administration. Ultra-performance liquid chromatography/quadrupole time-of-flight mass spectrometry revealed 34 metabolites; 7 primary metabolites were confirmed by comparison with synthetic reference standards. The results show that the parent drug Flumatinib (HHGV678) was the main form recovered in human plasma, urine, and feces. The main metabolites of Flumatinib (HHGV678) in humans were the products of N-demethylation, N-oxidation, hydroxylation, and amide hydrolysis [3].
Solvent&Solubility	***In Vitro:*** **DMSO : 100 mg/mL** (**177.75 mM;** Need ultrasonic)

	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.7775 mL	8.8875 mL	17.7749 mL
	5 mM	0.3555 mL	1.7775 mL	3.5550 mL
	10 mM	0.1777 mL	0.8887 mL	1.7775 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: ≥ 2.5 mg/mL (4.44 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (4.44 mM，饱和度未知) 的澄清溶液。

以 1 mL 工作液为例，取 100 μL 25.0 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% corn oil Solubility: ≥ 2.5 mg/mL (4.44 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (4.44 mM，饱和度未知) 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 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中，混合均匀。
References	[1]. Luo H, et al. HH-GV-678, a novel selective inhibitor of Bcr-Abl, outperforms imatinib and effectively overrides imatinib resistance. Leukemia. 2010 Oct;24(10):1807-9. [2]. Zhao J, et al. Flumatinib, a selective inhibitor of BCR-ABL/PDGFR/KIT, effectively overcomes drug resistance of certain KIT mutants. Cancer Sci. 2013 Nov 10. [3]. Gong A, et al. Metabolism of flumatinib, a novel antineoplastic tyrosine kinase inhibitor, in chronic myelogenous leukemia patients. Drug Metab Dispos. 2010 Aug;38(8):1328-40.