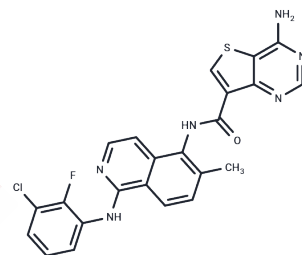


## Belvarafenib

## Chemical Properties

CAS No. :	1446113-23-0
Formula:	C <sub>23</sub> H <sub>16</sub> ClFN <sub>6</sub> O <sub>5</sub>
Molecular Weight:	478.93
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Belvarafenib (HM95573) is a potent pan-RAF inhibitor with antitumor activity and inhibits B-RAF, B-RAFv600E, and C-RAF with IC50 values of 56, 7, and 5 nM.
Targets(IC50)	Raf
In vitro	Belvarafenib (HM95573) inhibited B-RAF, B-RAFv600E and C-RAF with IC50 values of 56, 7 and 5 nM, respectively.[1]
In vivo	<b>METHODS:</b> Data were collected from 192 patients with melanoma who underwent NGS between November 2017 and May 2023.EAP patients were treated with 450 mg of Belvarafenib (HM95573) twice daily. <b>RESULTS</b> Six patients with NRAS or RAF alterations were treated with Belvarafenib (HM95573), and 50% of the patients had control of their disease, including two patients with significant outcomes. [2]

## Solubility Information

Solubility	DMSO: 25 mg/mL (52.2 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (2.09 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.088 mL	10.4399 mL	20.8799 mL
5 mM	0.4176 mL	2.088 mL	4.176 mL
10 mM	0.2088 mL	1.044 mL	2.088 mL
50 mM	0.0418 mL	0.2088 mL	0.4176 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Son J B , et al. Thieno[3,2-d]pyrimidine derivatives having inhibitory activity on protein kinases[J]. 2015.

Li W, Shi X, Tan C, et al. Plasma membrane-associated ARAF condensates fuel RAS-related cancer drug resistance. Nature Chemical Biology. 2025: 1-12.

Kim KH, et al. Exploring Molecular Genetic Alterations and RAF Fusions in Melanoma: A Belvarafenib Expanded Access Program in Patients with RAS/RAF-Mutant Melanoma. Oncologist. 2024 Jun 3;29(6):e811-e821.

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