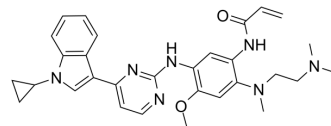


Almonertinib

Cat. No.:	HY-112823		
CAS No.:	1899921-05-1		
Molecular Formula:	C ₃₀ H ₃₅ N ₇ O ₂		
Molecular Weight:	525.64		
Target:	EGFR		
Pathway:	JAK/STAT Signaling; Protein Tyrosine Kinase/RTK		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 83.33 mg/mL (158.53 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.9024 mL	9.5122 mL	19.0244 mL
	5 mM	0.3805 mL	1.9024 mL	3.8049 mL
	10 mM	0.1902 mL	0.9512 mL	1.9024 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 6.25 mg/mL (11.89 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 6.25 mg/mL (11.89 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Almonertinib (HS-10296) is an orally available, irreversible, third-generation EGFR tyrosine kinase inhibitor with high selectivity for EGFR-sensitizing and T790M resistance mutations. Almonertinib shows great inhibitory activity against T790M, T790M/L858R and T790M/Del19 (IC₅₀: 0.37, 0.29 and 0.21 nM, respectively), and is less effective against wild type (3.39 nM). Almonertinib is used for the research of the non-small cell lung cancer^{[1][2]}.

IC₅₀ & Target

EGFR ^{T790M} 0.37 nM (IC ₅₀)	EGFR ^{L858R/T790M} 0.29 nM (IC ₅₀)	EGFR ^{del19 T790M} 0.21 nM (IC ₅₀)
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In Vitro

HS-10296 is an orally available inhibitor of the epidermal growth factor receptor (EGFR) mutant form T790M, with potential

antineoplastic activity, which can be used to treat NSCLC^[2]. Additionally, HS-10296 could also inhibit other EGFR sensitive mutations, including G719X, del19, L858R and L861Q^[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cell Rep Med. 2023 Jan 10;100911.
- Front Pharmacol. 2021 May 14;12:671328.
- Patent. US20220177473A1.

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REFERENCES

- [1]. Sullivan I, et al. Next-Generation EGFR Tyrosine Kinase Inhibitors for Treating EGFR-Mutant Lung Cancer beyond First Line. *Front Med (Lausanne)*. 2017 Jan 18;3:76.
- [2]. Wu SG, et al. Management of acquired resistance to EGFR TKI-targeted therapy in advanced non-small cell lung cancer. *Mol Cancer*. 2018 Feb 19;17(1):38.
- [3]. Yang JC, et al. Safety, Efficacy, and Pharmacokinetics of Almonertinib (HS-10296) in Pretreated Patients With EGFR-Mutated Advanced NSCLC: A Multicenter, Open-label, Phase 1 Trial [published online ahead of print, 2020 Sep 9]. *J Thorac Oncol*. 2020;S1556-0
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Caution: Product has not been fully validated for medical applications. For research use only.

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