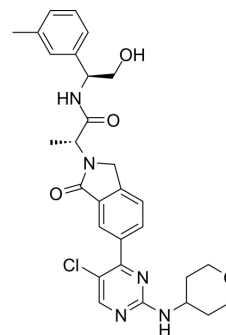


ERK1/2 inhibitor 1

Cat. No.:	HY-112287		
CAS No.:	2095719-90-5		
Molecular Formula:	C ₂₉ H ₃₂ ClN ₅ O ₄		
Molecular Weight:	550.05		
Target:	ERK		
Pathway:	MAPK/ERK Pathway; Stem Cell/Wnt		
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 : 250 mg/mL (454.50 mM; Need ultrasonic)					
		Solvent Concentration	Mass	1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM		1.8180 mL	9.0901 mL	18.1802 mL
		5 mM		0.3636 mL	1.8180 mL	3.6360 mL
10 mM			0.1818 mL	0.9090 mL	1.8180 mL	
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (3.78 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (3.78 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (3.78 mM); Clear solution 					

BIOLOGICAL ACTIVITY

Description	ERK1/2 inhibitor 1 is a potent, orally bioavailable ERK1/2 inhibitor, showing 60% inhibition at 1 nM and an IC ₅₀ of 3.0 nM against ERK1 and ERK2, respectively ^[1] .	
IC₅₀ & Target	ERK2 3.0 nM (IC ₅₀)	ERK1
In Vitro	ERK1/2 inhibitor 1 (Compound 27) shows excellent antiproliferative potency with IC ₅₀ s of 4.9 and 7.5 nM in A375 and	

Colo205 cells, respectively^[1].

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

CUSTOMER VALIDATION

- Cell Commun Signal. 2023 May 1;21(1):86.
- Int J Mol Sci. 2019 May 17;20(10):2456.
- J Obstet Gynaecol Res. 2020 Sep 17;46(12):2561-2572.
- Research Square Preprint. 2022 May.

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REFERENCES

[1]. Heightman TD, et al. Fragment-Based Discovery of a Potent, Orally Bioavailable Inhibitor That Modulates the Phosphorylation and Catalytic Activity of ERK1/2. J Med Chem. 2018 Jun 14;61(11):4978-4992.

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

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