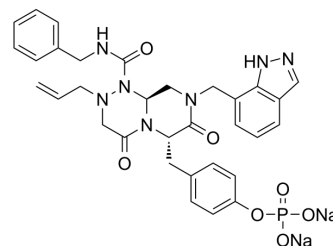


YB-0158

Cat. No.:	HY-136541
CAS No.:	1144043-83-3
Molecular Formula:	C ₃₂ H ₃₂ N ₇ Na ₂ O ₇ P
Molecular Weight:	703.59
Target:	Wnt; Apoptosis
Pathway:	Stem Cell/Wnt; Apoptosis
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (142.13 mM; Need ultrasonic)					
	H ₂ O : < 0.1 mg/mL (ultrasonic; adjust pH to 1 with 1M HCl) (insoluble)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		1.4213 mL	7.1064 mL	14.2128 mL
5 mM			0.2843 mL	1.4213 mL	2.8426 mL	
10 mM		0.1421 mL	0.7106 mL	1.4213 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: ≥ 2.5 mg/mL (3.55 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (3.55 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (3.55 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	YB-0158 (Wnt pathway inhibitor 2) is a reverse-turn peptidomimetic and a potent colorectal cancer stem cell (CSC) targeting agent. YB-0158 disrupts Sam68-Src interactions and induces apoptosis in CRC cells. Anti-cancer activities ^[1] .
IC₅₀ & Target	Wnt signaling ^[1]
In Vitro	YB-0158 (0.2 μM and 0.5 μM; 48 hours) significantly increases apoptosis in CRC cells as represented by activated Caspase-3/7 detection assays ^[1] . YB-0158 (0.3 μM) similarly decreases CBP recruitment at the promoter of Wnt/beta-Catenin target genes LGR5 and MYC in

HT29 cells, compared with DMSO control^[1].

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

In Vivo

YB-0158 displays an EC₅₀ (1.64 μM) in cultured MC38 cells. YB-0158 (100 mg/kg; IP; C57BL/6 mice bearing MC38 cells) shows no significant differences in primary tumor size in vivo treatments versus saline controls^[2].

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

CUSTOMER VALIDATION

- iScience. 10 November 2021.
- STAR Protoc. 18 March 2022, 101218.

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REFERENCES

[1]. Masibag AN, Bergin CJ, Haebe JR, et al. Pharmacological targeting of Sam68 functions in colorectal cancer stem cells. iScience. 2021;24(12):103442.

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

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