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Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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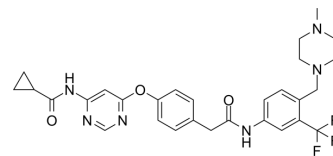
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WS6

Cat. No.:	HY-12461
CAS No.:	1421227-53-3
Molecular Formula:	C ₂₉ H ₃₁ F ₃ N ₆ O ₃
Molecular Weight:	568.59
Target:	Others
Pathway:	Others
Storage:	<div> <div>Powder</div> <div> -20°C 3 years 4°C 2 years </div> </div> <div> <div>In solvent</div> <div> -80°C 2 years -20°C 1 year </div> </div>



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (175.87 mM)
 * "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		1.7587 mL	8.7937 mL	17.5874 mL
	5 mM		0.3517 mL	1.7587 mL	3.5175 mL
	10 mM		0.1759 mL	0.8794 mL	1.7587 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: ≥ 2.5 mg/mL (4.40 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.5 mg/mL (4.40 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (4.40 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

WS6 is a novel small molecule that promotes β cell proliferation in rodent and human primary islets with EC₅₀ of 0.28 μM (R7T1 cell viability). EC₅₀ value: 0.28 μM [1] Target: β cell proliferation agonist in vitro: WS6 induced up to 4% of rat β cells to proliferate, with an EC₅₀ of 0.4 μM. In the same format, WS6 also induced 3% of human β cells to proliferate, with a similar potency to the rat β cells. WS6 induced R7T1 proliferation in dose response, with EC₅₀ value of 0.28 μM. Proliferation of R7T1 cells, which are cultured in suspension and grow as clusters, was apparent by visible inspection. in vivo: RIP-DTA mice were fed Dox in the drinking water until the onset of overt diabetes (blood glucose reading >300 mg/dL, typically 4-10 days), at

which point Dox treatment was discontinued and treatment with WS6 was initiated (5 mg/kg every other day via intraperitoneal injection). Pharmacokinetic studies with WS6 at 50 mg/kg revealed a CMAX of 0.5 μ M and T1/2 of 0.2 h. Treatment with WS6 caused a progressive reduction of blood glucose over time, starting around 2 weeks.

REFERENCES

- [1]. Shen W, et al. Small-molecule inducer of β cell proliferation identified by high-throughput screening. J Am Chem Soc. 2013 Feb 6;135(5):1669-72.
- [2]. Zhang H, Xiang L, Yang L, et al. WS6 Induces Adult Hippocampal Neurogenesis in Correlation to its Antidepressant Effect on the Alleviation of Depressive-like Behaviors of Rats. Neuroscience. 2021;473:119-129.
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Caution: Product has not been fully validated for medical applications. For research use only.

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