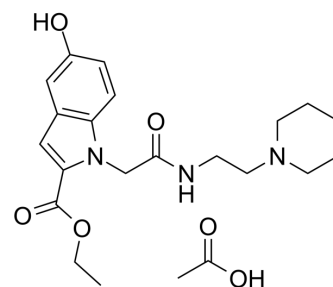


KY-02327 acetate

Cat. No.:	HY-124156A
CAS No.:	2989396-34-9
Molecular Formula:	C ₂₂ H ₃₁ N ₃ O ₆
Molecular Weight:	433.5
Target:	Wnt
Pathway:	Stem Cell/Wnt
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

H₂O : ≥ 160 mg/mL (369.09 mM)

DMSO : 140 mg/mL (322.95 mM; ultrasonic and warming and heat to 80°C)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	<div><div>Solvent</div><div>Concentration</div></div>	Mass	1 mg	5 mg	10 mg
	1 mM	2.3068 mL	11.5340 mL	23.0681 mL	
	5 mM	0.4614 mL	2.3068 mL	4.6136 mL	
	10 mM	0.2307 mL	1.1534 mL	2.3068 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 (5.77 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (5.77 mM); Clear solution

3. Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (5.77 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	KY-02327 acetate, a metabolically stabilized KY-02061 analog, is a potent Dishevelled (Dvl)-CXXC5 interaction inhibitor. KY-02327 acetate shows an activating effect on the Wnt/β-catenin pathway, resulting in promotion of osteoblast differentiation [1].
In Vitro	KY-02327 (1-10 μM; 2 days; MC3T3E1 cells, a murine pre-osteoblast cell line) acetate increases β-catenin protein level together with Runx2 and accumulated nuclear β-catenin in a dose-dependent manner ^[1] .

	<p>KY-02327 (1-10 μM) acetate increases the mRNA levels of osteoblast differentiation markers collagen 1a (Col1a) and osteocalcin (OCN)^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
In Vivo	<p>KY-02327 (20 mg/kg; p.o.; 5 sequential days per week for 4 weeks) acetate successfully rescues bone loss in the ovariectomized (OVX) mouse model^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. Kim HY, et al. Small molecule inhibitors of the Dishevelled-CXXC5 interaction are new drug candidates for bone anabolic osteoporosis therapy. EMBO Mol Med. 2016;8(4):375-387.

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

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