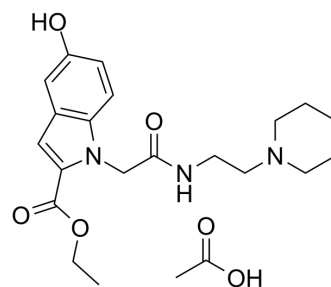


## KY-02327 acetate

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



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : ≥ 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 | Solvent Concentration | 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

- 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
- 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
- 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<sup>[1]</sup>.  
 KY-02327 (1-10 μM) acetate increases the mRNA levels of osteoblast differentiation markers collagen 1a (Col1a) and

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|                |  |
|----------------|--|
|                | osteocalcin (OCN) <sup>[1]</sup> .<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only.  |
| <b>In Vivo</b> | 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 <sup>[1]</sup> .<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

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## REFERENCES

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[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.

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

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