# **Product** Data Sheet

## LY2828360

Cat. No.: HY-16642A CAS No.: 1231220-79-3 Molecular Formula:  $C_{22}H_{27}CIN_6O$ Molecular Weight: 426.94

Target: Cannabinoid Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

-20°C Storage: Powder

2 years

3 years

-80°C In solvent 2 years

> -20°C 1 year

### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 20.83 mg/mL (48.79 mM; Need ultrasonic)

| Preparing<br>Stock Solutions | Solvent Mass<br>Concentration | 1 mg      | 5 mg       | 10 mg      |
|------------------------------|-------------------------------|-----------|------------|------------|
|                              | 1 mM                          | 2.3422 mL | 11.7112 mL | 23.4225 mL |
|                              | 5 mM                          | 0.4684 mL | 2.3422 mL  | 4.6845 mL  |
|                              | 10 mM                         | 0.2342 mL | 1.1711 mL  | 2.3422 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: ≥ 2.08 mg/mL (4.87 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (4.87 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (4.87 mM); Clear solution

### **BIOLOGICAL ACTIVITY**

Description LY2828360 is a slowly acting but efficacious G protein-biased cannabinoid (CB<sub>2</sub>) agonist, inhibiting cAMP accumulation and activating ERK1/2 signaling.

 $CB_2^{[1]}$ . IC<sub>50</sub> & Target

In Vivo In WT mice, acute systemic administration of LY2828360 suppresses paclitaxel-induced mechanical and cold allodynia in a dose-dependent manner. LY2828360 produces time-dependent suppressions of paclitaxel-evoked mechanical and cold

hypersensitivities and suppression of allodynia is maintained for at least 4.5 h post-injection relative to drug pre-injection levels. At 24 h post-injection, paclitaxel-induced mechanical allodynia has returned to drug pre-injection levels of hypersensitivity. Residual suppression of cold allodynia was absent by 72 h post LY2828360 treatment. Previously chronic administration of LY2828360 blocks the development of tolerance to the antiallodynic effects of morphine in WT but not in  $CB_2KO$  mice. Chronic LY2828360 treatment suppresses paclitaxel-induced mechanical and cold allodynia in WT mice but not in  $CB_2KO$  mice previously render tolerant to morphine [1].

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

### **REFERENCES**

[1]. Lin X, et al. Slowly Signaling G Protein-Biased CB2 Cannabinoid Receptor Agonist LY2828360 Suppresses Neuropathic Pain with Sustained Efficacy and Attenuates Morphine Tolerance and Dependence. Mol Pharmacol. 2018 Feb;93(2):49-62.

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

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Page 2 of 2 www.MedChemExpress.com