# Dazucorilant

**Cat. No.:** HY-132811

**CAS No.:** 1496508-34-9

**Molecular Formula:** $C_{29}H_{22}F_4N_4O_3S$

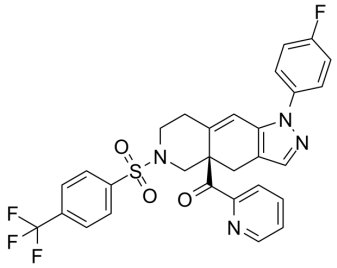
**Molecular Weight:** 582.57

**Target:** Glucocorticoid Receptor

**Pathway:** Immunology/Inflammation; Vitamin D Related/Nuclear Receptor

**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 (171.65 mM; ultrasonic and warming and heat to 80°C)

| Preparing Stock Solutions | Mass / Solvent / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 1.7165 mL | 8.5827 mL | 17.1653 mL |
| | 5 mM | 0.3433 mL | 1.7165 mL | 3.4331 mL |
| | 10 mM | 0.1717 mL | 0.8583 mL | 1.7165 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 (4.29 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.29 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

Dazucorilant (CORT113176) is a selective and high affinity non-steroidal glucocorticoid receptor (GR) modulator with a $K_i$ value ⊠1 nM in vitro. Dazucorilant can be used for the research of neurological disorders[1][2].

**$IC_{50}$ & Target**

GR[1]

**In Vitro**

In HepG2 human cells or in human hepatocytes, Dazucorilant acts as full antagonist since it is able to prevent the dexamethasone-induced increase in TAT activity and to induce non-measurable agonist activity in the absence of dexamethasone[3].

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

**In Vivo**

Dazucorilant (30 mg/kg/day; s.c.) makes mice show reversed abnormalities of motoneurons and down-regulated

proinflammatory mediators and glial reactivity[1].
Dazucorilant (5, 10 or 20 mg/kg; i.p.) reverses hippocampal amyloid-β peptide generation, neuroinflammation and apoptotic processes, restores the hippocampal levels of synaptic markers, reestablishes basal plasma levels of glucocorticoids and improves cognitive function at a dose of 10 mg/kg[2].

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

| | |
|---|---|
| Animal Model: | Wobbler mice (five-month-old)[1] |
| Dosage: | 30 mg/kg/day |
| Administration: | S.c. |
| Result: | Wobbler mice showed reversed abnormalities of motoneurons and down-regulated proinflammatory mediators and glial reactivity. |

| | |
|---|---|
| Animal Model: | Adult SD male rats[2] |
| Dosage: | 5, 10 or 20 mg/kg |
| Administration: | I.p. |
| Result: | Reversed hippocampal amyloid-β peptide generation, neuroinflammation and apoptotic processes, restored the hippocampal levels of synaptic markers, reestablished basal plasma levels of glucocorticoids and improved cognitive function at a dose of 10 mg/kg. |

## REFERENCES


[1]. Meyer M, et al. The Selective Glucocorticoid Receptor Modulator Cort 113176 Reduces Neurodegeneration and Neuroinflammation in Wobbler Mice Spinal Cord. Neuroscience. 2018;384:384-396.

[2]. Pineau F, et al. New selective glucocorticoid receptor modulators reverse amyloid-β peptide-induced hippocampus toxicity. Neurobiol Aging. 2016;45:109-122.

[3]. Canet G, et al. Central Role of Glucocorticoid Receptors in Alzheimer's Disease and Depression. Front Neurosci. 2018;12:739. Published 2018 Oct 16.





Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA