# LG100268

**Cat. No.:** HY-15340

**CAS No.:** 153559-76-3

**Molecular Formula:** $C_{24}H_{29}NO_2$

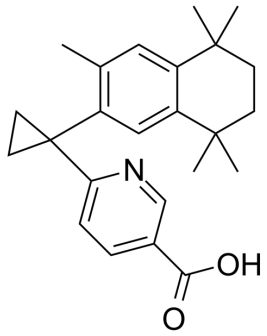
**Molecular Weight:** 363.49

**Target:** RAR/RXR; Autophagy

**Pathway:** Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor; Autophagy

**Storage:**

| | | |
|---|---|---|
| Powder | -20°C | 3 years |
| | 4°C | 2 years |
| In solvent | -80°C | 2 years |
| | -20°C | 1 year |




## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 5.56 mg/mL (15.30 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 2.7511 mL | 13.7555 mL | 27.5111 mL |
| | 5 mM | 0.5502 mL | 2.7511 mL | 5.5022 mL |
| | 10 mM | 0.2751 mL | 1.3756 mL | 2.7511 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: ≥ 0.56 mg/mL (1.54 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 0.56 mg/mL (1.54 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 0.56 mg/mL (1.54 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

LG100268 (LG268) is a potent, selective and orally active retinoid X receptor (RXR) agonist with $EC_{50}$ values of 4 nM, 3 nM, and 4 nM for RXR-α, RXR-β, and RXR-γ, respectively[1]. LG100268 displays >1000-fold selectivity for RXR over RAR, the $K_i$ values are 3.4 nM, 6.2 nM and 9.2 nM for RXR-α, RXR-β, and RXR-γ, respectively[2]. LG100268 activates RXR homodimers to induce transcriptional activation. LG100268 can be used for the study of lung carcinogenesisy[3].

**In Vitro**

LG100268 (100 nM-1 μM; 24 hours) shows a downregulation of CSF3 and a 2.5-fold decrease of CXCL2 and IL-1β mRNA expression in RAW264.7 cells[3].

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

Cell Viability Assay[3]

| | |
|---|---|
| Cell Line: | RAW264.7 cells |
| Concentration: | 100 nM-1 μM |
| Incubation Time: | 24 hours |
| Result: | Decreased LPS induced cytokine mRNA levels. |

**In Vivo**

LG100268 (oral diet; 100 mg/kg; once daily; 7 weeks) combines with C/P presents a more markedly reduced average tumor burden than LG268 or C/P alone. The combination establish a reduced lung tumors, which represents a reduction of 82% (vs. 59%-67% with the single drugs) in comparison with the controls[3].

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

| | |
|---|---|
| Animal Model: | A/J mice[3] |
| Dosage: | 50 mg/kg (Combines with carboplatin (50 mg/kg i.p.) starts 1 week after the LG268 treatment diet) |
| Administration: | Oral diet; once daily; 7 weeks |
| Result: | Decreased lung tumors growth significantly in mice. |

## CUSTOMER VALIDATION

- J Steroid Biochem Mol Biol. 2022 Nov 8;226:106219.
- Exp Eye Res. 2022 Sep 20;109251.

See more customer validations on www.MedChemExpress.com

## REFERENCES


[1]. M F Boehm, et al. Design and Synthesis of Potent Retinoid X Receptor Selective Ligands That Induce Apoptosis in Leukemia Cells. J Med Chem

[2]. D S Lala, et al. Activation of Specific RXR Heterodimers by an Antagonist of RXR Homodimers.Nature. 1996 Oct 3;383(6599):450-3.

[3]. Martine Cao,et al.The Rexinoids LG100268 and LG101506 Inhibit Inflammation and Suppress Lung Carcinogenesis in A/J Mice. Cancer Prev Res (Phila). 2016 Jan;9(1):105-14.





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