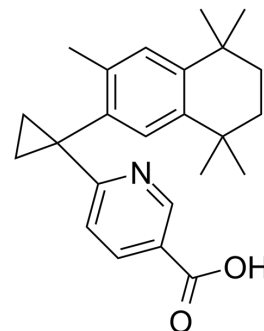


LG100268

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; Autophagy		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 5.56 mg/mL (15.30 mM; Need ultrasonic)					
		Solvent Concentration	Mass	1 mg	5 mg	10 mg
	Preparing Stock Solutions	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	<ol style="list-style-type: none"> 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 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 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 carcinogenesis ^[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 μ M
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

- Exp Eye Res. 2022 Sep 20;109251.

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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 Reginoids LG100268 and LG101506 Inhibit Inflammation and Suppress Lung Carcinogenesis in A/J Mice. Cancer Prev Res (Phila). 2016 Jan;9(1):105-14.

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

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