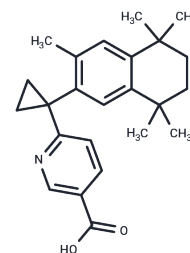


LG100268

Chemical Properties

CAS No. :	153559-76-3
Formula:	C ₂₄ H ₂₉ N ₂ O
Molecular Weight:	363.49
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	LG100268 is a potent, selective, and orally active retinoid X receptor (RXR) agonist that agonizes RXR- α , RXR- β , and RXR- γ at the nanomolar level, selectively exceeding the RAR by three orders of magnitude. LG100268 is capable of inducing transcriptional activation in adipocytes; affecting the RXRs and their chaperone receptor, Foxl2/Dmrt1, to induce flounder masculinization in juvenile flounder; inhibits keratin 17 expression in nigrostriatal epithelial cells; and increases PD-L1 expression in HER2 or triple-negative breast cancer.
Targets(IC50)	Retinoid Receptor, PD-1/PD-L1, Autophagy
In vitro	Methods: RAW264.7 cells were treated with LG100268 (100 nM-1 μ M, 24 hours) and protein level changes were detected by WB. Results: LG100268 can downregulate CSF3 in RAW264.7 cells and reduce CXCL2 and IL-1 β mRNA expression by 2.5 times. [6]
In vivo	Methods: To prevent invasive breast cancer, MMTV-erbB2 mice were treated chronically with vehicle, LG100268 (10 mg/kg), or LG100268 (100 mg/kg) by gavage starting at 3 months of age. For pre-invasive lesion studies, mice were treated with vehicle or LG100268 (100 mg/kg) by daily gavage for 4 months. Results: Chronic LG100268 treatment significantly prevented the development of invasive breast tumors. The median time to tumor development (age) was delayed from 217 days in the vehicle group to 357 days in the low-dose group. In the high-dose group, only 2 of 20 mice developed tumors after 430 days of treatment. [5]

Solubility Information

Solubility	DMSO: 4 mg/mL (11 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.055 mL	0.2751 mL	0.5502 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

- Cao M, Royce DB, Risingsong R, Williams CR, Sporn MB, Liby KT. 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. doi: 10.1158/1940-6207.CAPR-15-0325. PubMed PMID: 26554632.
- Seo HS, Woo JK, Shin YC, Ko SG. Identification of biomarkers regulated by rexinoids (LGD1069, LG100268 and Ro25-7386) in human breast cells using Affymetrix microarray. *Mol Med Rep*. 2015 Jul;12(1):800-18. doi: 10.3892/mmr.2015.3480. PubMed PMID: 25778982; PubMed Central PMCID: PMC4438952.
- Mazumdar A, Medina D, Kittrell FS, Zhang Y, Hill JL, Edwards DE, Bissonnette RP, Brown PH. The combination of tamoxifen and the rexinoid LG100268 prevents ER-positive and ER-negative mammary tumors in p53-null mammary gland mice. *Cancer Prev Res (Phila)*. 2012 Oct;5(10):1195-202. doi: 10.1158/1940-6207.CAPR-11-0524. PubMed PMID: 22926341; PubMed Central PMCID: PMC3837417.
- Liby K, Risingsong R, Royce DB, Williams CR, Ma T, Yore MM, Sporn MB. Triterpenoids CDDO-methyl ester or CDDO-ethyl amide and rexinoids LG100268 or NRX194204 for prevention and treatment of lung cancer in mice. *Cancer Prev Res (Phila)*. 2009 Dec;2(12):1050-8. doi: 10.1158/1940-6207.CAPR-09-0085. PubMed PMID: 19952361; PubMed Central PMCID: PMC2818234.
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