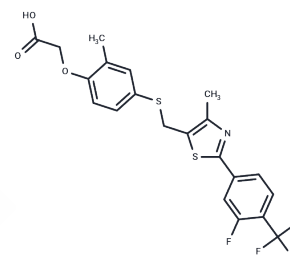


GW0742

Chemical Properties

CAS No. : 317318-84-6
 Formula: C₂₁H₁₇F₄N₃O₃S₂
 Molecular Weight: 471.49
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
 Actual storage temperature shall be subject to the COA.



Biological Description

Description	GW0742 (GW610742) is an effective and specific PPAR δ agonist (EC ₅₀ : 1 nM/1.1 μ M/2 μ M, for human PPAR δ / α / γ).
Targets(IC ₅₀)	PPAR
In vitro	GW0742 shows activity against hPPAR α , hPPAR γ and hPPAR δ with EC ₅₀ of 1.1 μ M, 2 μ M and 1 nM, respectively, in cell based transactivation assay. [1] GW0742 (0.2 μ M and 1 μ M) significant increases in reporter activity of PPAR β / δ in N/TERT-1 keratinocytes. GW0742 (1 μ M) results in significant inhibition in the average number of N/TERT-1 keratinocytes. GW0742 (1 μ M) results in an increase in the number of cells in the G1 phase and a decrease in the number of cells in the S phase. GW0742 (1 μ M) causes a significant increase in the mRNA encoding ADRP, a known PPAR β / δ target gene, in N/TERT-1 keratinocytes as well as mouse primary keratinocytes. GW0742 (1 μ M) results in significantly reduced phosphorylation of retinoblastoma (Rb) and a significantly lower level of p42/44 ERK in N/TERT-1 cells. GW0742 (1 μ M) leads to an increase in the mRNA encoding a number of known markers of terminal differentiation including TG-I, SPR1A, K10 and involucrin. [2] GW0742 at 100 μ M produces a significant reduction in low-KCl-induced neuronal cell death in cerebellar granule neurons. GW0742 at 100 μ M induces a pronounced increase in cell death as measured by LDH release after 48 hr of incubation. GW0742 at 100 μ M produces a pronounced increase in c-Jun expression at 6 hours in cerebellar granule neuron cultures. GW0742 at 100 μ M increases PPAR α -mediated transactivation dependent on the presence of 1.5% BSA in MCF-7 cells. [3]
In vivo	GW0742-treatment (0.3 mg/Kg, 10 % DMSO, i.p.) has therapeutic effects on pulmonary damage, decreasing many inflammatory and apoptotic parameters detected by measurement of 1) cytokine production; 2) leukocyte accumulation, indirectly measured as decrease of myeloperoxidase (MPO) activity; 3) I κ B α degradation and NF- κ B nuclear translocation; 4) ERK phosphorylation; 5) stress oxidative by NO formation due to iNOS expression; 6) nitrotyrosine and PAR localization; 7) the degree of apoptosis, evaluated by Bax and Bcl-2 balance, FAS ligand expression and TUNEL staining. Taken together, GW0742 reduces the lung injury and inflammation due to the intratracheal BLEO--instillation in mice.
Cell Research	N/TERT-1 keratinocytes are seeded onto 6-well tissue culture dishes at 3 \times 10 ⁴ cells per well in Ker-SFM. Twenty-four hours later, cell number is measured with a Z1 coulter particle counter to determine plating efficiency (Day 0). For the remaining cells, medium

Cell Research	is changed to Ker-SFM/DF-K, and cells are treated in triplicate with 0.1% DMSO, 0.1 μ M or 1 μ M GW0742. Cell number is determined at daily intervals, and the remaining cells are retreated with fresh media and treatment each day for up to 6 days.(Only for Reference)
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Solubility Information

Solubility	DMSO: 250 mg/mL (530.23 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (21.21 mM),Suspension. 10% DMSO+90% Saline: < 10 mg/mL (21.21 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1209 mL	10.6047 mL	21.2094 mL
5 mM	0.4242 mL	2.1209 mL	4.2419 mL
10 mM	0.2121 mL	1.0605 mL	2.1209 mL
50 mM	0.0424 mL	0.2121 mL	0.4242 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

- Sznajdman ML, et al. Bioorg Med Chem Lett, 2003, 13(9), 1517-1521.
 Dou X, Huo T, Liu Y, et al.Discovery of novel and selective farnesoid X receptor antagonists through structure-based virtual screening, preliminary structure-activity relationship study, and biological evaluation.European Journal of Medicinal Chemistry.2024: 116323.
 Peng C, Wu F, Ma Y, et al.Ginkgolic acid Inhibits Ebola Virus Transcription and Replication by Disrupting the Interaction Between Nucleoprotein and VP30 Protein.Antiviral Research.2024: 106074.
 Burdick AD, et al. Cell Signal, 2007, 19(6), 1163-1171.
 Smith SA, et al. J Neurosci Res, 2004, 77(2), 240-249.
 Briand F, et al. Clin Transl Sci, 2009, 2(2), 127-133.
 Haskova Z, et al. Inflamm Res, 2008, 57(7), 314-321.

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