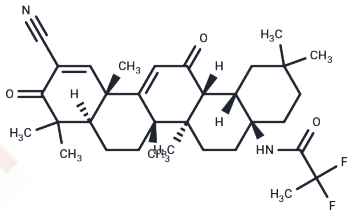
Data Sheet (Cat.No.T6919)

TargetMol

Omaveloxolone

Chemical Properties



CAS No. : 1474034-05-3

Formula: C33H44F2N2O3

Molecular Weight: 554.71

Storage: Store at low temperature
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	Omaveloxolone (RTA-408) (RTA-408) is a synthetic triterpenoid that activates the cytoprotective transcription factor Nrf2 and inhibits NF-κB signaling. Phase 2.
Targets(IC50)	Apoptosis,Nrf2,STING
In vitro	Omaveloxolonepotently increases expression of Nrf2 target genes and reverses IFNγ-mediated suppression of Gclc expression in RAW 264.7 cells. In a panel of eight human tumor cell lines, Omaveloxoloneinhibits growth with an average GI50 value of 260 nM and induces apoptosis. Omaveloxolonealso inhibits NF-κB and activates JNK in tumor cells. [1]
In vivo	In mice with radiation-induced dermatitis, 1.0% Omaveloxolonemarkedly reduces epidermal and collagen thickening, prevents dermal necrosis and completely alleviates skin ulcers. [2] In rat skin, Omaveloxoloneactivates Nrf2 and induces cytoprotective genes. [3] Omaveloxolonealso mitigates hematopoietic acute radiation syndrome in mice. [4]
Cell Research	For growth inhibition assays, cells are plated in duplicate 96-well culture dishes at 3 x 103 cells per well. The following day, one plate is treated with RTA 408 and the other is immediately processed for the sulforhodamine B (SRB) assay (time 0). Cells in the RTA 408-treated plate are processed for the SRB assay 72 hours after the start of treatment. Percentage of growth relative to vehicle-treated cells is calculated using: [(Ti-Tz)/(C-Tz)] x 100 where (Tz) is the absorbance value at time zero, (C) is absorbance value from vehicle treated wells after 72 hours, and (Ti) is the absorbance value from wells treated with the drug. Dose-response curves are plotted in GraphPad Prism and GI50 values are calculated(Only for Reference)

Solubility Information

Solubility	Ethanol: 16 mg/mL (28.84 mM),Sonication is recommended. DMSO: 240 mg/mL (432.66 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)

In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (5.95 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8027 mL	9.0137 mL	18.0274 mL
5 mM	0.3605 mL	1.8027 mL	3.6055 mL
10 mM	0.1803 mL	0.9014 mL	1.8027 mL
50 mM	0.0361 mL	0.1803 mL	0.3605 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

Probst BL, et al. PLoS One. 2015, 10(4), e20122942.
Reisman SA, et al. Radiat Res. 2014, 181(5), 512-520.
Reisman SA, et al. Arch Dermatol Res. 2014, 306(5), 447-454.
Goldman DC, et al. Radiat Res. 2015, 183(3), 338-344.