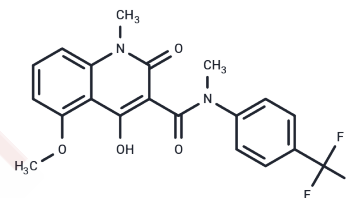


Tasquinimod

Chemical Properties

CAS No. : 254964-60-8
 Formula: C₂₀H₁₇F₃N₂O₄
 Molecular Weight: 406.36
 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	Tasquinimod (ABR-215050) is an oral antiangiogenic agent with potential antitumor activity. It is also an S100A9 inhibitor and binds to the HDAC4Zn ²⁺ binding structural domain with K _d values between 10 and 30 nM.
Targets(IC50)	HDAC
In vitro	<p>METHODS: Human MM cells (multiple myeloma cells) were treated with increasing concentrations of Tasquinimod (ABR-215050) (10,25 μM) for 24 h, 48 h, 72 h, and 120 h. The effect of Tasquinimod on the value added of human MM cells was observed.</p> <p>RESULTS Tasquinimod inhibited the growth and proliferation of MM cells in vitro. [1]</p> <p>METHODS: SKOV3 and SKOV3/DDP cells were treated with 40 μM tasquinimod, and the expression of histone deacetylase 4 (HDAC4), Nur77, Bcl-2 (BH3 structural domain specific), and caspase-3 were analyzed by Western blot and quantitative real-time polymerase chain reaction (qPCR).</p> <p>RESULTS Cell migration and HDAC4 expression levels were significantly reduced, while Nur77 expression levels were elevated. [2]</p>
In vivo	<p>METHODS: Mice were treated with Tasquinimod (ABR-215050) (30 mg/kg), added to the daily drinking water at an early stage after MM cell inoculation, and immune cell populations were studied using flow cytometry.</p> <p>RESULTS Short-term Tasquinimod treatment did not lead to alterations in MM cell homing to the bone marrow, but a significant increase in the total percentage of CD11b cells could be observed, whereas a slight decrease in monocytes and immature myeloid populations (CD11b, Ly6G, Ly6C^{low}) was observed, and an increase in macrophage populations (CD11b, F4/80), which showed a more pro-inflammatory phenotype of M1 (MHCII) and the M2 marker CD206.[1]</p> <p>METHODS: SKOV3 or SKOV3/DDP cells were injected into 4-week-old female BALB/c nude mice. Then, 50 mg/kg Tasquinimod was administered every 3 days. finally, changes in tumor diameter and weight were measured, and apoptosis, migration rate, and related expression of Nur77 and Bcl-2 (BH3 structural domain specific) were detected by flow cytometry, scratch assay, and immunofluorescence.</p> <p>RESULTS Tasquinimod significantly reduced tumor diameter, tumor mass, and in vivo HDAC4 levels in mice. Meanwhile, Nur77 and Bcl-2 (BH3 structural domain specific) levels were elevated. [2]</p>
Cell Research	Tasquinimod is dissolved in DMSO and stored, and then diluted with appropriate media before use[3]. Two human prostate cancer cell lines, CWR-22RH and LNCaP (ATCC) are

Cell Research	both androgen independent, but remain sensitive to androgen stimulation of growth, express PSA and a mutated androgen receptor. The hormone independent cell lines LNCaP19 and DU145 are also tested for TSP1 induction after in vitro exposure to Tasquinimod (0.1-100 μ M). CWR-22RH, LNCaP and DU145 are grown in RPMI Medium 1640 containing 10% FCS and L-Glutamine mixture, while LNCAP19 is cultured in RPMI-medium with 10% hormone free (RDCC) FCS[3].
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Solubility Information

Solubility	Ethanol: 9 mg/mL (22.15 mM),Sonication is recommended. DMSO: 65 mg/mL (159.96 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	2% DMSO+40% PEG300+5% Tween-80+53% Saline: 1 mg/mL (2.46 mM) <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	2.4609 mL	12.3044 mL	24.6087 mL
5 mM	0.4922 mL	2.4609 mL	4.9217 mL
10 mM	0.2461 mL	1.2304 mL	2.4609 mL
50 mM	0.0492 mL	0.2461 mL	0.4922 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

- Fan R, et al. Tasquinimod suppresses tumor cell growth and bone resorption by targeting immunosuppressive myeloid cells and inhibiting c-MYC expression in multiple myeloma. *J Immunother Cancer*. 2023 Jan;11(1):e005319.
- Lin Y,et al. Tasquinimod enhances the sensitivity of ovarian cancer cells to cisplatin by regulating the Nur77-Bcl-2 apoptotic pathway. *Adv Clin Exp Med*. 2024 Feb;33(2):151-161.
- Raymond E, et al. *Cancer Chemother Pharmacol*.2014, 73(1), 1-8.

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