

Product Data Sheet

Product Name: Tasquinimod

Cat. No.: GC14340

Chemical Properties

Cas. No. 254964-60-8

Chemical Name 4-hydroxy-5-methoxy-N,1-dimethyl-2-oxo-N-[4-(trifluoromethyl)phenyl]quinoline-3-carboxamide

SMILES CN1C2=C(C(=CC=C2)OC)C(=C(C1=O)C(=O)N(C)C3=CC=C(C=C3)C(F)(F)F)O

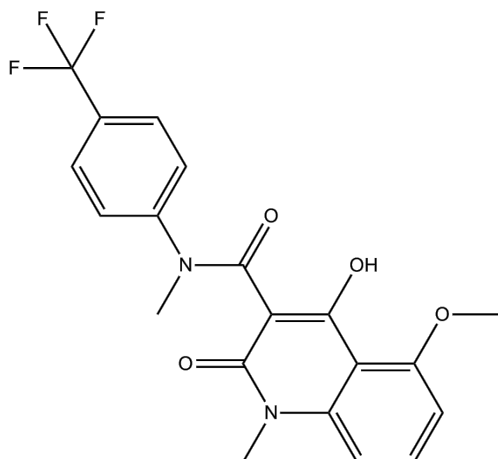
Formula $C_{20}H_{17}F_3N_2O_4$ M.Wt 406.36

Solubility ≥ 20.318 mg/mL in DMSO, ≥ 4.75 mg/mL in EtOH with ultrasonic and warming Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Protocol

Cell experiment [1]:

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Cell lines SKOV3 cells

Preparation Method SKOV3 cells were treated with 40μM Tasquinimod for 48h, then cell migration was assessed using the scratch-wound assay. Linear wounds were scratched using a sterile pipette tip, and the relative scratch width was measured after 48h of incubation.

Reaction Conditions 40μM; 48h

Applications Treatment with Tasquinimod reduced the relative scratch width and inhibited cell migration.

Animal experiment [2]:

Animal models Nude BALB/c mice bearing subcutaneous LNCaP prostate tumor cells

Preparation Method Nude mice were subcutaneously inoculated with LNCaP cells. Tasquinimod (10mg/kg/day) was administered orally via drinking water for 3 weeks. Animals were euthanized on day 28 after inoculation, and tumor tissues were excised. TSP1 protein levels were assessed by western blot, with β-actin as internal control.

Dosage form 10mg/kg/day; 3 weeks; p.o.

Applications Treatment with Tasquinimod significantly increased the level of TSP1 protein in tumor tissues, and the ratio of intact TSP1 (approximately 150-160kDa) to β-actin was significantly increased.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

References:

- [1] Lin Y, Liu Y Q, Zhu K A, et al. Tasquinimod enhances the sensitivity of ovarian cancer cells to cisplatin by regulating the Nur77-Bcl-2 apoptotic pathway[J]. *Advances in Clinical and Experimental Medicine*, 2024, 33(2): 151-161.
- [2] Olsson A, Björk A, Vallon-Christersson J, et al. Tasquinimod (ABR-215050), a quinoline-3-carboxamide anti-angiogenic agent, modulates the expression of thrombospondin-1 in human prostate tumors[J]. *Molecular Cancer*, 2010, 9(1): 107.

Background

Tasquinimod is an orally active inhibitor of histone deacetylase 4 (HDAC4) and S100 calcium-binding protein A9 (S100A9)^[1]. Tasquinimod inhibits angiogenesis and reduces immunosuppression within tumors, and is commonly used in the research and treatment of metastatic castration-resistant prostate cancer (mCRPC)^[2,3,4].

In vitro, treatment of SKOV3/DDP cells with Tasquinimod (40μM) for 12-48h resulted in significantly downregulated Bcl-2 expression and significantly upregulated cleaved-Caspase-3 expression compared to controls. Overexpression of HDAC4 partially reversed the pro-apoptotic effect of Tasquinimod^[5]. Treatment of SKOV3 cells with Tasquinimod (40μM) for 48h reduced the relative scratch width and inhibited cell migration ability^[6].

In vivo, oral administration of Tasquinimod (10mg/kg/day) for 9 weeks in mice with intratibial injections of LNCaP-19 cells reduced the tumor incidence in bone from 7/10 in the control group to 2/10 in the treatment group^[7]. Oral administration of Tasquinimod (10mg/kg/day) for 3 weeks in LNCaP tumor-bearing mice significantly increased TSP1 protein levels in tumor tissues, and the ratio of intact TSP1 (approximately 150-160kDa) to β-actin was markedly increased in the treatment group^[8].

References:

- [1] Fan R, Satilmis H, Vandewalle N, et al. Tasquinimod suppresses tumor cell growth and bone resorption by targeting immunosuppressive myeloid cells and inhibiting c-MYC expression in multiple myeloma[J]. *Journal for Immunotherapy of Cancer*, 2023, 11(1): e005319.
- [2] Raymond E, Dalglish A, Damber J E, et al. Mechanisms of action of tasquinimod on the tumour

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

- microenvironment[J]. Cancer Chemotherapy and Pharmacology, 2014, 73(1): 1-8.
- [3] Gupta N, Al Ustwani O, Shen L, et al. Mechanism of action and clinical activity of tasquinimod in castrate-resistant prostate cancer[J]. OncoTargets and Therapy, 2014: 223-234.
- [4] Mehta A R, Armstrong A J. Tasquinimod in the treatment of castrate-resistant prostate cancer—current status and future prospects[J]. Therapeutic Advances in Urology, 2016, 8(1): 9-18.
- [5] Li Z, Wu Y H, Guo Y Q, et al. Tasquinimod promotes the sensitivity of ovarian cancer cells to cisplatin by down-regulating the HDAC4/p21 pathway[J]. The Korean Journal of Physiology & Pharmacology, 2025, 29(2): 191-204.
- [6] Lin Y, Liu Y Q, Zhu K A, et al. Tasquinimod enhances the sensitivity of ovarian cancer cells to cisplatin by regulating the Nur77-Bcl-2 apoptotic pathway[J]. Advances in Clinical and Experimental Medicine, 2024, 33(2): 151-161.
- [7] Jennbacken K, Welén K, Olsson A, et al. Inhibition of metastasis in a castration resistant prostate cancer model by the quinoline-3-carboxamide tasquinimod (ABR-215050)[J]. The Prostate, 2012, 72(8): 913-924.
- [8] Olsson A, Björk A, Vallon-Christersson J, et al. Tasquinimod (ABR-215050), a quinoline-3-carboxamide anti-angiogenic agent, modulates the expression of thrombospondin-1 in human prostate tumors[J]. Molecular Cancer, 2010, 9(1): 107.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA