

Product Data Sheet

Product Name: SB 265610

Cat. No.: GC13458

Chemical Properties

Cas. No. 211096-49-0

Chemical Name 1-(2-bromophenyl)-3-(7-cyano-2H-benzo[d][1,2,3]triazol-4-yl)urea

SMILES BrC1=CC=CC=C1NC(=O)NC2=CC=C(C#N)C3=NNN=C23=O

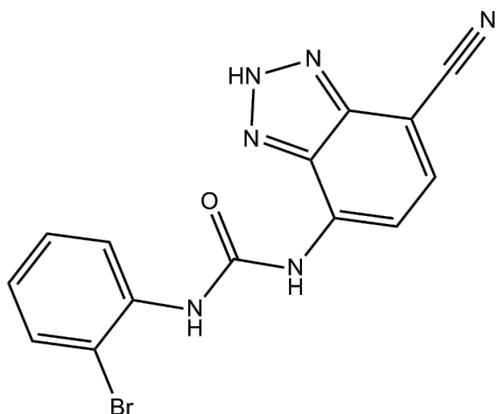
Formula $C_{14}H_9BrN_6O$ M.Wt 357.16

Solubility 3mg/mL in DMSO, 3mg/mL in DMF, 5mg/mL in Ethanol 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]:

Cell lines SW480 cells (colorectal carcinoma cell line)

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

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Preparation Method SW480 cells were maintained in DMEM supplemented with 10% fetal bovine serum (FBS), L-glutamine, penicillin, and streptomycin at 37°C in a humidified atmosphere of 5% CO₂. Cells was treated with SB 265610 at concentrations of 1, 10, and 20μM for 48 hours.

Reaction Conditions 1-20μM; 48h

Applications SB265610 failed to induce a G2-M arrest.

Animal experiment [2]:

Animal models C57-Black wild type mice

Preparation Method SB 265610 (100mg/kg/day) was administered to Nitrogen mustard-induced chemical burn model C57-Black mice via dietary supplementation for 5 days.

Dosage form 100mg/kg/day; dietary supplementation; 5 days

Applications SB 265610 significantly lowered myeloperoxidase (MPO) activity and markedly impaired the wound healing process.

References:

- [1] Goda AE, Koyama M, Sowa Y, et al. Molecular mechanisms of the antitumor activity of SB225002: a novel microtubule inhibitor. *Biochem Pharmacol.* 2013 Jun 15;85(12):1741-52.
- [2] Milatovic S, Nanney LB, Yu Y, et al. Impaired healing of nitrogen mustard wounds in CXCR2 null mice. *Wound Repair Regen.* 2003 May-Jun;11(3):213-9.

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Background

SB 265610 is a competitive non-peptide allosteric CXCR2 antagonist that blocks neutrophil chemotaxis ($IC_{50}=70nM$) and calcium mobilization ($IC_{50}=3.7nM$). SB 265610 can be used for research related to inflammatory diseases and cancer^[1-4].

In vitro, SB 265610 (1–20 μM) was used to treat SW480 cells for 48 hours. SB 265610 failed to induce G2-M phase arrest^[5]. SB 265610 (1 μM) was used to treat PyMT-Luc and 17L3C-Luc breast cancer cell lines for 4 hours. SB 265610 significantly attenuated mesenchymal stem cell-conditioned medium-induced cancer cell migration and reduced CXCR2 phosphorylation^[6].

In vivo, SB 265610 (2mg/kg; once daily) was intraperitoneally injected into BALB/c or C57BL/6 mice bearing MC38 or CT26 colorectal cancer cells for 12 days. SB 265610 blocked the tumor-promoting effect of METTL3^[7]. SB 265610 (100mg/kg/day) was administered to Nitrogen mustard-induced chemical burn model C57-Black mice via dietary supplementation for 5 days. SB 265610 significantly lowered myeloperoxidase activity and impaired the wound healing process^[8].

References:

- [1] Auten RL, Richardson RM, White JR, et al. Nonpeptide CXCR2 antagonist prevents neutrophil accumulation in hyperoxia-exposed newborn rats. *J Pharmacol Exp Ther*. 2001 Oct;299(1):90-5.
- [2] Planagumà A, Domènech T, Pont M, et al. Combined anti CXCR1 and CXCR2 therapy is a promising anti-inflammatory treatment for respiratory diseases by reducing neutrophil migration and activation. *Pulm Pharmacol Ther*. 2015 Oct;34:37-45.
- [3] Clément S, Pascarella S, Conzelmann S, et al. The hepatitis C virus core protein indirectly induces alpha-smooth muscle actin expression in hepatic stellate cells via interleukin-8. *J Hepatol*. 2010 May;52(5):635-43.
- [4] He Q, Huang W, Liu D, et al. Homeobox B5 promotes metastasis and poor prognosis in Hepatocellular Carcinoma, via FGFR4 and CXCL1 upregulation. *Theranostics*. 2021 Mar 31;11(12):5759-5777.
- [5] Goda AE, Koyama M, Sowa Y, et al. Molecular mechanisms of the antitumor activity of SB225002: a novel microtubule inhibitor. *Biochem Pharmacol*. 2013 Jun 15;85(12):1741-52.
- [6] Halpern JL, Kilbarger A, Lynch CC. Mesenchymal stem cells promote mammary cancer cell migration in vitro via the CXCR2 receptor. *Cancer Lett*. 2011 Sep 1;308(1):91-9.
- [7] Chen H, Pan Y, Zhou Q, et al. METTL3 Inhibits Antitumor Immunity by Targeting m6A-BHLHE41-

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CXCL1/CXCR2 Axis to Promote Colorectal Cancer. Gastroenterology. 2022 Oct;163(4):891-907.

[8] Milatovic S, Nanney LB, Yu Y, et al. Impaired healing of nitrogen mustard wounds in CXCR2 null mice. Wound Repair Regen. 2003 May-Jun;11(3):213-9.

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