

Product Data Sheet

Product Name: STAT3-IN-13

Cat. No.: GC73311

Chemical Properties

Cas. No. 2248552-86-3

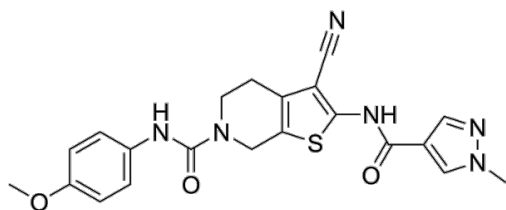
Formula $C_{21}H_{20}N_6O_3S$ M.Wt 436.49

Solubility DMSO : 125 mg/mL (286.38 mM; Storage -20°C
Need ultrasonic)

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



Background

STAT3-IN-13 (compound 6f) is a potent STAT3 inhibitor. STAT3-IN-13 has anti-proliferative effects and binds to the STAT3 SH2 domain with a KD of 0.46 μ M. STAT3-IN-13 inhibits the phosphorylation

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

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of STAT3 Y705 and downstream target gene expression. STAT3-IN-13 induces apoptosis in vitro and suppresses the growth and metastasis of tumor in vivo. STAT3-IN-13 can be used for cancer research.

STAT3-IN-13 (compound 6f) (48 hours) has anti-proliferative activity with IC₅₀ values of 0.25, 0.11 and 0.55 μ M for 143B, HOS and MG63 cells, respectively[1]. STAT3-IN-13 (compound 6f) (0.001-100 μ M) binds to STAT3 and interacts with STAT3586–685 in a concentration dependent manner with a K_D of 0.96 μ M[1]. STAT3-IN-13 (compound 6f) (0-1.0 μ M; 24 hours; 143B and HOS cells) inhibits STAT3 Y705 phosphorylation and suppresses STAT3 in tumor cells[1]. STAT3-IN-13 (compound 6f) (0-1.0 μ M; 48 hours; 143B cells) induces apoptosis in a dose-dependent manner[1].

STAT3-IN-13 (compound 6f) (10-20 mg/kg; i.p.; twice daily, for 4 weeks; nude mice) blocks osteosarcoma growth and metastasis in vivo[1].

References:

[1]. Jin W, et, al. Discovery of 2-Amino-3-cyanothiophene Derivatives as Potent STAT3 Inhibitors for the Treatment of Osteosarcoma Growth and Metastasis. J Med Chem. 2022 May 12;65(9):6710-6728.

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