
Product Data Sheet

Product Name: LY5
Cat. No.: GC67706

Chemical Properties

Cas. No. 1436382-03-4

Formula $C_{15}H_{11}N_3O_4S$ M.Wt 329.33

Solubility Storage Store at $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ 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

IC₅₀: 0.5 μ M (STAT3)^[1]

LY5 is a **STAT3** inhibitor with an **IC₅₀** value of 0.5 μ M. LY5 induces **Apoptosis** and inhibits STAT3 phosphorylation. LY5 shows antitumor activity in vivo, it can be used for the research of cancer^[1].

LY5 shows inhibition effects to U2OS, RH30 and RD2 cancer cells with IC₅₀ values of 0.52, 0.55 and 1.39 μ M, respectively^[1].

LY5 (0.25-1 μ M; 16 h) induces apoptosis and inhibits STAT3 phosphorylation in human sarcoma cancer cells^[1].

LY5 (0.25-1 μ M; 5 h) inhibits STAT3 phosphorylation induced by IL-6^[1].

Western Blot Analysis^[1]

Cell Line: RH30 and EW8 cell lines

Concentration: 0.25-1 μ M

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

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Incubation
Time: 16 hours

Result: Completely inhibited Tyr705 phosphorylation at 0.5 μ M and dose-dependently decreased in formation of P-STAT3.

LY5 (5 mg/kg; i.p. once daily for 21 days) inhibits breast tumor growth in vivo^[1].

Animal Model: Nude mice with MDA-MB-231 cancer cells injection^[1]

Dosage: 5 mg/kg

Administration: Intraperitoneal injection; 5 mg/kg; once daily; for 21 days

Result: Suppressed tumor growth and significantly reduced the tumor sizes.

[1]. Yu W, et al. Discovery of novel STAT3 small molecule inhibitors via in silico site-directed fragment-based drug design. J Med Chem. 2013 Jun 13;56(11):4402-12.

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