

Product Data Sheet

Product Name: JH-X-119-01

Cat. No.: GC63925

Chemical Properties

Cas. No. 2227368-54-7

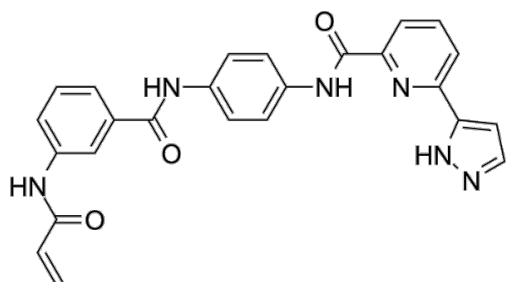
Formula $C_{25}H_{20}N_6O_3$ M.Wt 452.46

Solubility DMSO : 250 mg/mL (552.54 mM; Need ultrasonic) 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



Background

JH-X-119-01 is a potent and selective interleukin-1 receptor-associated kinases 1 (IRAK1) inhibitor.

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

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JH-X-119-01 ameliorates LPS-induced sepsis in mice[1]. JH-X-119-01 inhibits IRAK1 biochemically with an apparent IC₅₀ of 9 nM while exhibiting no inhibition of IRAK4 at concentrations up to 10 μ M[2].

JH-X-119-01 (10 μ M) decreases phosphorylation of NF- κ B and mRNA levels of IL-6 and TNF α in LPS-treated macrophages in vitro. JH-X-119-01 selectively inhibits IRAK1 phosphorylation[1]. JH-X-119-01 exhibits off-target inhibition of only two additional kinases, YSK4 and MEK3. Dose response analysis reveals an IC₅₀ of 57 nM for YSK4[2]. JH-X-119-01 shows moderate cell killing effects in a panel of Waldenström's macroglobulinemia (WM) cells, Diffused Large B-cell Lymphoma (DLBCL) cells, and lymphoma cells expressing mutant MYD88, with EC₅₀s ranging from 0.59 to 9.72 μ M[2].

JH-X-119-01 improves survival and decreases immunopathies of LPS-challenged mice. JH-X-119-01 increases survival of mice at the dose of 5 mg/kg body weight. Survival is further improved when the dose is increased to 10 mg/kg[1].

[1]. Bin Pan, et al. Selective inhibition of interleukin-1 receptor-associated kinase 1 ameliorates lipopolysaccharide-induced sepsis in mice. *Int Immunopharmacol.* 2020 Aug;85:106597.

[2]. John M Hatcher, et al. Discovery of a Selective, Covalent IRAK1 Inhibitor with Antiproliferative Activity in MYD88 Mutated B-Cell Lymphoma. *ACS Med Chem Lett.* 2020 Oct 9;11(11):2238-2243.

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