
Product Data Sheet

Product Name: YE6144
Cat. No.: GC70156

Chemical Properties

Cas. No.

Formula $C_{21}H_{27}ClFN_7O$ M.Wt 447.94

Solubility DMSO : 125 mg/mL (279.06 mM; ultrasonic and warming and heat to 60°C) 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

YE6144 is a prototypical **interferon regulatory factor 5 (IRF5)** inhibitor. YE6144 selectively suppresses IRF5 activity through inhibition of IRF5 phosphorylation^[1].

YE6144 (1 or 3 μ M; 30 min) inhibits the phosphorylation of IRF5 in both human PBMCs and mouse splenocytes^[1].

YE6144 (0-10 μ M; 30 min) inhibits the production of type I IFNs with an IC_{50} of approximately 0.09 μ M in human HC PBMCs^[1].

Western Blot Analysis^[1]

Cell Line: Human HC PBMCs and mouse WT splenocytes

Concentration: 1 μ M (PBMCs) and 3 μ M (splenocytes)

Incubation Time: 30 min

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

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Result: Inhibited the phosphorylation of IRF5.

RT-PCR^[1]

Cell Line: Mouse WT splenocytes

Concentration: 3 μ M

Incubation
Time: 30 min

Result: Induction of type I IFN genes, *Irfnb1* and *Irfna* stimulated by TLR7 ligands or TLR9 ligands was remarkably weakened.

YE6144 (40.0 mg/kg; s.c.; once) suppresses the progression of mouse systemic lupus erythematosus^[1].

Animal Model: NZB/W F1 mouse model of systemic lupus erythematosus (SLE)^[1]

Dosage: 40.0 mg/kg

Administration: Subcutaneous injection, once

Result: Suppressed the exacerbation of autoantibody production. Splenomegaly and renal dysfunction were also suppressed by the treatment after disease onset.

[1]. Ban T, et al. Genetic and chemical inhibition of IRF5 suppresses pre-existing mouse lupus-like disease. Nat Commun. 2021 Jul 19;12(1):4379.

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