

Product Data Sheet

Product Name: FK3453
Cat. No.: GC79373

Chemical Properties

Cas. No. 560111-91-3

Formula $C_{17}H_{17}N_5O$ M.Wt 307.35

Solubility DMSO: 50 mg/mL (162.68 mM; Need Storage ultrasonic) 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.

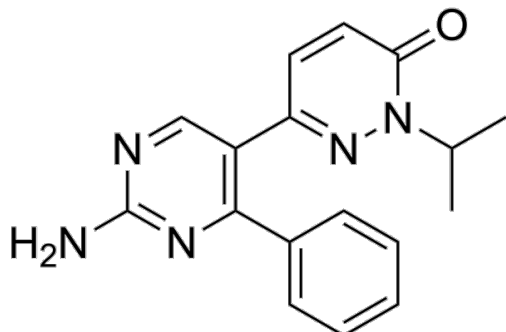
Caution: Product has not been fully validated for medical applications. For research use only.

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Structure



Background

FK3453 is a dual adenosine A1/A2 inhibitor and a TSLP inhibitor. FK3453 is also a substrate of aldehyde oxidase (AO). FK3453 can inhibit the production of TSLP and IL-33. FK3453 is useful for research on Parkinson's disease and allergic disorders [1] [2] [3].

In Vivo, FK3453 (0.3 mM; intracavitary injection; single dose) suppresses TSLP production and reduces the weight of exudate fluid in the air pouch model of inflammation induced by LPS in ICR mice^[2].

In Vitro, FK3453 (1-10 μ M; 0-24 h) inhibits constitutive TSLP production in KCMH-1 mouse keratinocytes in a concentration-dependent manner without reducing cell viability^[2]. FK3453 (1-10 μ M; 4.5 h) inhibits TSLP mRNA expression in PAM212 mouse keratinocytes treated with TPA ^[2].

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FK3453 (1-10 μ M; 4.5-24.5 h) inhibits T4FP-induced and TPA-induced TSLP mRNA expression in NHEKs, as well as TPA-induced IL-33 mRNA expression^[2].

References:

- [1]. Sanoh S, et al. Prediction of human metabolism of FK3453 by aldehyde oxidase using chimeric mice transplanted with human or rat hepatocytes. Drug Metab Dispos. 2012;40(1):76-82.
- [2]. Segawa R, et al. Inhibition of thymic stromal lymphopoietin production by FK3453. J Pharmacol Sci. 2022;149(4):198-204.
- [3]. Akabane T, et al. Case report of extensive metabolism by aldehyde oxidase in humans: pharmacokinetics and metabolite profile of FK3453 in rats, dogs, and humans. Xenobiotica. 2011;41(5):372-384.

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