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**Product Data Sheet**


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Product Name: GNF2133

Cat. No.: GC64724

**Chemical Properties**

Cas. No. 2561414-56-8

Formula C<sub>24</sub>H<sub>30</sub>N<sub>6</sub>O<sub>2</sub> M.Wt 434.53

Solubility 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**

GNF2133 is a potent, selective and orally active DYRK1A inhibitor with IC<sub>50</sub>s of 0.0062, >50 μM for DYRK1A and GSK3β, respectively. GNF2133 shows good proliferation potency and efficacy on rat and human primary β-cell. GNF2133 significantly improves glucose disposal capacity and increases insulin secretion. GNF2133 has the potential for the research of type 1 diabetes[1].

GNF2133 (30 mg/kg; p.o.) shows good oral absorption with oral bioavailability of 22.3% [1]. GNF2133 (30 mg/kg; p.o.; once a day for 5 days) shows the ability to proliferate β-cells in vivo[1]. GNF2133 (3, 10, 30 mg/kg) significantly improves glucose disposal capacity and increased insulin secretion in RIP-DTA mice[1]. Pharmacokinetic Parameters of GNF2133 in CD-1 mice[1]. plasma (iv) plasma (po) pancreas (po) CL (mL/min/kg) 23.5 V<sub>ss</sub> (L/kg) 11 AUC (h.nM) 326810974144420 C<sub>max</sub>(nM) 1977167513319 t<sub>max</sub><(h) 0.033.03.0 C<sub>last</sub>(nM) 36.6191324 t<sub>1/2</sub><(h) 6.63.46.6 F (%) 22.3 CD-1 mice; 30 mg/kg; p.o. sup>[1].

[1]. Liu YA, et al. Selective DYRK1A Inhibitor for the Treatment of Type 1 Diabetes: Discovery of 6-Azaindole Derivative GNF2133. J Med Chem. 2020 Mar 26;63(6):2958-2973.

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

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