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## Product Data Sheet

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Product Name: DPP-4 inhibitor 1

Cat. No.: GC31512

**Chemical Properties**

Cas. No. 1915007-89-4

SMILES FC1=CC(F)=C([C@H]2OC3=CC=C(C=C(C#N)C(OC)=C4)C4=C3C[C@@H]2N)C=C1FFormula  $C_{21}H_{15}F_3N_2O_2$  M.Wt 384.35

Solubility Soluble in DMSO 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**

DPP-4 inhibitor 1 (compound 5) is a potent and long acting Dipeptidyl peptidase-4 (DPP-4) inhibitor for treatment of T2DM, with a KD of 0.177 nM[1].

A single-dose oral administration of DPP-4 inhibitor 1 (compound 5) (3 mg/kg) inhibits >80% of DPP-4 activity for more than 7 days in diabetic mice[1]. Administration of DPP-4 inhibitor 1 (compound 5) (3 and 10 mg/kg, p.o., qw for 8 weeks) causes significant reductions in fasting blood glucose (FBG) levels, and the average reduction during the entire treatment period is 24.7 and 33.1%, respectively. Chronic administration of DPP-4 inhibitor 1 (compound 5) (10 mg/kg/week) also significantly improves the glucose tolerance of the diabetic mice[1].  
 || Animal Model: |ICR mice[1]. | Dosage: |0.3, 3, 10 mg/kg. | Administration: |Oral, once. | Result: |Resulted in a time- and dose-dependent inhibition of plasma DPP-4 activity. The active GLP-1 and insulin level were significantly increased compared with the vehicle control.  
 || Animal Model: |Genetic-type 2 diabetes animal models in db/db Mice[1]. | Dosage: |3 and 10 mg/kg. | Administration: |Oral administration once a week, for 8 weeks. | Result: |Caused significant reductions in fasting blood glucose (FBG) levels. Improved the glucose tolerance of the diabetic mice significantly.

[1]. Li S, et al. Discovery of a Natural-Product-Derived Preclinical Candidate for Once-Weekly Treatment of Type 2 Diabetes. J Med Chem. 2019 Feb 1.

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

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