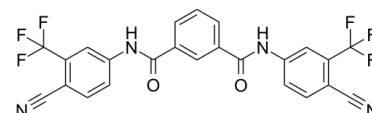


Data Sheet

| | |
|--------------------|--|
| Product Name: | DJ-V-159 |
| Cat. No.: | CS-0077824 |
| CAS No.: | 2253744-53-3 |
| Molecular Formula: | C ₂₄ H ₁₂ F ₆ N ₄ O ₂ |
| Molecular Weight: | 502.37 |
| Target: | Androgen Receptor |
| Pathway: | Others |
| Solubility: | DMSO : 25 mg/mL (49.76 mM; Need ultrasonic) |



BIOLOGICAL ACTIVITY:

DJ-V-159 is an agonist for G protein-coupled receptor family C group 6 member A (**GPRC6A**). IC₅₀ & Target: GPRC6A^[1]. **In Vitro:** DJ-V-159 activates ERK in HEK-293 transfected with GPRC6A but not in non-transfected HEK-293 cells, with potency similar to L-Arg. In addition, DJ-V-159 dose-dependently stimulates cAMP production in GPRC6A expressing HEK-293 cells, achieving a response at 0.2 nM concentrations in the media. DJ-V-159 stimulates insulin secretion in mouse beta-cell MIN-6 cells. The DJ-V-159 increased insulin stimulation index (SI) in MIN-6 cells similar to the effects of Ocn, known ligand of GPRC6A^[1]. **In Vivo:** DJ-V-159 at the dose of 10 mg/kg reduces blood glucose levels in wildtype mice at 60 and 90 minutes after intraperitoneal administration of 10 mg/kg, whereas the vehicle (95% PEG + 5% DMSO) has no effect on blood glucose. DJ-V-159 reduces blood glucose levels in wild-type mice by 43.6% and 41.9% at 60 and 90 minutes, respectively, after intraperitoneal administration of 10 mg/kg. The mice tolerated this short-term exposure to DJ-V-159 without any overt side-effects. DJ-V-159, however, is almost in or on the boundary of the Lipinski's Rule of Five^[1].

PROTOCOL (Extracted from published papers and Only for reference)

Animal Administration: ^[1]Mice^[1]

8 to 10 weeks old wild type **C57BL/6 mice** are fasted for 5 hours, injected ip with **{DJ-V-159} (10 mg/kg body weight)**, or Metformin (300 mg/kg body weight), or vehicle (95% PEG + 5% DMSO; 10 µL/g body weight). Blood glucose levels are measured at 0, 30, 60 and 90 minutes after injection^[1].

References:

[1]. Pi M, et al. Computationally identified novel agonists for GPRC6A. PLoS One. 2018 Apr 23;13(4):e0195980.

CAIndexNames:

1,3-Benzenedicarboxamide, N1,N3-bis[4-cyano-3-(trifluoromethyl)phenyl]-

SMILES:

O=C(C1=CC(C(NC2=CC(C(F)(F)F)=C(C#N)C=C2)=O)=CC=C1)NC3=CC(C(F)(F)F)=C(C#N)C=C3

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

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