

**Catalog # 10-1469**

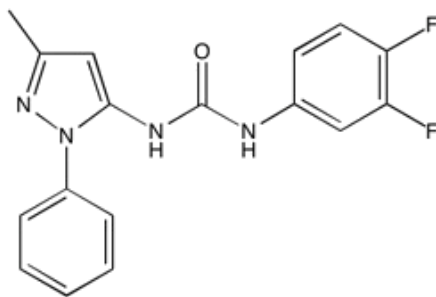
**ML297**

CAS# 1443246-62-5

N-(3,4-Difluorophenyl)-n'-(3-methyl-1-phenyl-1H-pyrazol-5-yl)urea

VU0456810

Lot # S101107



Selective GIRK  $\frac{1}{2}$  ( $K_{ir}3.1/3.2$ ) channel activator,  $IC_{50}$  = 160, 887 and 914 nM for GIRK1/2, GIRK1/4 and GIRK1/3 respectively. Has no effect on GIRK2, GIRK2/3,  $K_{ir}2.1$  and  $K_v7.4$  channels.<sup>1,2</sup> Displays antiseizure activity<sup>2</sup> and decreases anxiety-related behavior without sedative or addictive effects<sup>3</sup>. Reduces glucose- and IBMX-stimulated GLP-1 secretion with no effect on GIP in murine L and K cells.<sup>4</sup> Brain penetrant.

- 1) Wen et al. (2014), *Discovery of potent and selective GIRK1/2 modulators via "molecular switches" within a series of 1-(3-cyclopropyl-1-phenyl-1H-pyrazol-5-yl)ureas*; *Bioorg. Med. Chem. Lett.*, **24** 5102
- 2) Kaufmann et al. (2013), *ML-297 (VU0456810), the first potent and selective activator of the GIRK potassium channel, displays antiepileptic properties in mice*; *ACS Chem. Neurosci.*, **4** 1278
- 3) Wydeven et al. (2014), *Mechanisms underlying the activation of G-protein-gated inwardly rectifying K<sup>+</sup> (GIRK) channels by the novel anxiolytic drug, ML297*; *Proc. Natl. Acad. Sci. USA*, **111** 10755
- 4) Psichas et al. (2016), *Galanin inhibits GLP-1 and GIP secretion via the GAL1 receptor in enteroendocrine L and K cells*; *Br. J. Pharmacol.*, **173** 888

**PHYSICAL DATA**

Molecular Weight:	328.32
Molecular Formula:	C <sub>17</sub> H <sub>14</sub> F <sub>2</sub> N <sub>4</sub> O
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	Soluble in DMSO (up to 45 mg/ml) or in Ethanol (up to 20 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

**Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.**