

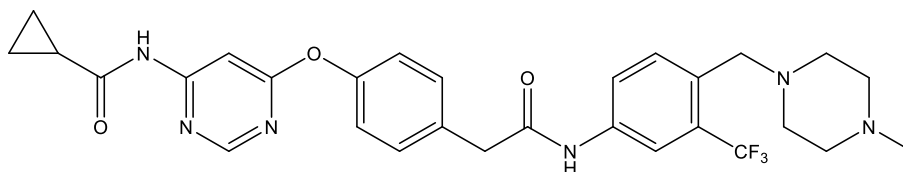
**Catalog # 10-5666**

**WS6**

CAS# 1421227-53-3

4-[[6-[Cyclopropylcarbonyl)amino]-4-pyrimidinyl]oxy]-N-[4-[(4-methyl-1-piperazinyl)methyl]-3-(trifluoromethyl)phenyl]-benzeneacetamide

Lot # X109927



Stimulates human  $\beta$ -cell proliferation both in a dispersed islet proliferation assay and in intact human cultures.<sup>1</sup> It has been shown to induce both  $\alpha$ - and  $\beta$ -cell proliferation.<sup>2</sup> May lead to the development of new therapeutics for diabetes.<sup>3</sup> Induces adult hippocampal neurogenesis correlating with its antidepressant effect in a rat model of chronic unpredictable mild stress-induced depression.<sup>4</sup> Has been used together with TTNPB and azakenpaullone, as a defined chemical cocktail to induce mouse totipotent stem cells.<sup>5</sup> Cell permeable.

- 1) Shen *et al.* (2013), *Small-molecule inducer of  $\beta$  cell proliferation identified by high throughput screening*; J. Am. Chem. Soc., **135** 1669
- 2) Boerner *et al.* (2015), *WS6 induces both alpha and beta cell proliferation without affecting differentiation or viability*; Endocrinol. J., **62** 379
- 3) Shirakawa and Kulkarni (2016), *Novel factors modulating human  $\beta$ -cell proliferation*; Diabetes Obes. Metab, **18 Suppl. 1** 71
- 4) Zhang *et al.* (2021), *WS6 Induces Adult Hippocampal Neurogenesis in Correlation to its Antidepressant Effect on the Alleviation of Depressive-like Behavior of Rats*; Neuroscience **473** 119
- 5) Hu *et al.* (2022), *Induction of mouse totipotent stem cells by a defined chemical cocktail*; Nature, Online ahead of pub

**PHYSICAL DATA**

Molecular Weight:	568.60
Molecular Formula:	C <sub>29</sub> H <sub>31</sub> F <sub>3</sub> N <sub>6</sub> O <sub>3</sub>
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (>30 mg/ml)
Physical Description:	Off-white to beige solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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