

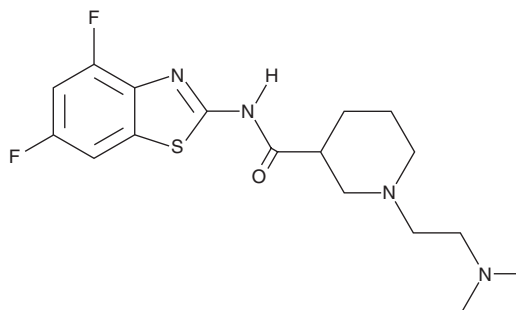
PRODUCT INFORMATION



MCUF-651

Item No. 42055

CAS Registry No.: 2747162-85-0
Formal Name: N-(4,6-difluoro-2-benzothiazolyl)-1-[2-(dimethylamino)ethyl]-3-piperidinecarboxamide
MF: C₁₇H₂₂F₂N₄OS
FW: 368.4
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

MCUF-651 is supplied as a solid. A stock solution may be made by dissolving the MCUF-651 in the solvent of choice, which should be purged with an inert gas. MCUF-651 is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in ethanol.

Description

MCUF-651 is a positive allosteric modulator (PAM) of the guanylyl cyclase A receptor (GC-A).¹ It induces the production of cGMP in the presence (EC₅₀ = 0.45 μM) but not the absence of atrial natriuretic peptide (ANP) in HEK293 cells expressing human GC-A. MCUF-651 is selective for GC-A over GC-B in HEK293 cells expressing the human receptors at 10 μM. It binds to the GC-A extracellular domain (K_d = 397 nM) and enhances the binding of ANP to the GC-A extracellular domain in cell-free assays. MCUF-651 (1-10 μM) enhances ANP-induced production of cGMP in primary human renal proximal tubular cells, visceral adipocytes, and cardiomyocytes. It also inhibits TGF-β1-induced hypertrophy of primary human cardiomyocytes when used in combination with ANP. MCUF-651 induces cGMP production in GC-A-expressing HEK293 cells incubated with plasma isolated from patients with hypertension or heart failure.

Reference

1. Sangaralingham, S.J., Whig, K., Peddibhotla, S., *et al.* Discovery of small molecule guanylyl cyclase A receptor positive allosteric modulators. *Proc. Natl. Acad. Sci. USA* **118**(52), e2109386118 (2021).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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