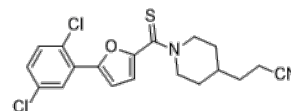


Product Name : MCUF-42
Cat. No. : PC-22560
CAS No. :
Molecular Formula : C₁₉H₁₈Cl₂N₂OS
Molecular Weight : 393.33
Target : Guanylate Cyclase
Solubility : 10 mM in DMSO



Biological Activity

MCUF-42 is a selective, positive allosteric modulator (PAM) of **guanylyl cyclase B** (GC-B) receptor, dose-dependently potentiates CNP-induced cGMP with EC₅₀ of 0.8 μ M (E_{max} = 86%), enhances the binding affinity between GC-B and its natural ligand C-type natriuretic peptide (CNP).

In the absence of CNP, MCUF-42 possesses no cGMP-generating activity in HEK293 GC-B cells.

MCUF-42 is a PAM without agonistic activity.

MCUF-42 binds to human GC-B with KD of 710 nM in SPR assays.

MCUF-42 (1, 5, and 10 μ M) enhances the cGMP generation of CNP in human cardiac fibroblasts (HCFs).

MCUF-42 enhances CNP mediated inhibition of HCF proliferation triggered by profibrotic TGF β 1.

References

Ma X, et al. *PNAS Nexus*. 2024 Jun 6;3(6):pgae225.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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