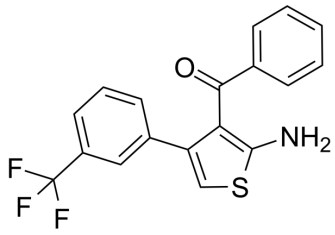
VCP171

Cat. No.:	HY-113608
CAS No.:	1018830-99-3
Molecular Formula:	$C_{18}H_{12}F_3NOS$
Molecular Weight:	347.35
Target:	Adenosine Receptor
Pathway:	GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	VCP171 is a potent adenosine A1 receptor (A1R) positive allosteric modulator (PAM). VCP171 is effective at decreasing excitatory synaptic currents in Lamina II of neuropathic pain model. VCP171 can be used for researching neuropathic pain[1].
IC_{50} & Target	A1R
In Vivo	VCP171 (10 μM) reduces AMPAR-mediated evoked excitatory postsynaptic current (eEPSCs) in lamina I cells in sham and nerve-injured animals; increases paired pulse ration in cells from sham control animals; is significantly more effective in Lamina II neurons from nerve-injured animals than sham controls[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Neurons from male Sprague-Dawley rats (5-6 weeks; performed a partial nerve ligation (PNL) of the left sciatic nerve to create neuropathic pain model)[1]
Dosage:	10 μM
Administration:	0-30 min
Result:	Reduced AMPAR-mediated evoked excitatory postsynaptic current (eEPSCs) in Lamina I cells in sham (13±2%, n=7 cells) and nerve-injured animals (24±4%, n=8 cells) compared with predrug controls; increased paired pulse ration in cells from sham control animals; was significantly more effective in Lamina II neurons from nerve-injured animals than sham controls.

REFERENCES

[1]. Imlach WL, et al. A Positive Allosteric Modulator of the Adenosine A1 Receptor Selectively Inhibits Primary Afferent Synaptic Transmission in a Neuropathic Pain Model. Mol Pharmacol. 2015 Sep;88(3):460-8.

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

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