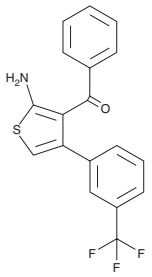
PRODUCT INFORMATION

VCP171

Item No. 30309

CAS Registry No.:	1018830-99-3
Formal Name:	[2-amino-4-[3-(trifluoromethyl)phenyl]-3-thienyl]phenyl-methanone
MF:	$C_{18}H_{12}F_3NOS$
FW:	347.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 210, 241 nm
Supplied as:	A crystalline 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

VCP171 is supplied as a crystalline solid. A stock solution may be made by dissolving the VCP171 in the solvent of choice, which should be purged with an inert gas. VCP171 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of VCP171 in ethanol is approximately 10 mg/ml and approximately 30 mg/ml in DMSO and DMF.

VCP171 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, VCP171 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. VCP171 has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

VCP171 is a positive allosteric modulator of adenosine A_1 receptors (EC_{50} = 15.8 µM in a kinetic assay measuring agonist dissociation).[1] It reduces AMPA receptor-mediated evoked excitatory postsynaptic currents (eEPSCs) in lamina I and lamina II neurons in a rat model of neuropathic pain (EC_{50}s = 1.995 and 0.251 µM, respectively) to a greater extent than in sham control animals (EC_{50}s = 2.512 and 0.631 µM, respectively).[2]

References

1. Aurelio, L., Figler, H., Flynn, B.L., *et al.* 5-Substituted 2-aminothiophenes as A_1 adenosine receptor allosteric enhancers. *Bioorg. Med. Chem.* **16(3)**, 1319-1327 (2008).
2. Imlach, W.L., Bhola, R.F., May, L.T., *et al.* A positive allosteric modulator of the adenosine A_1 receptor selectively inhibits primary afferent synaptic transmission in a neuropathic pain model. *Mol. Pharm.* **88(3)**, 460-468 (2015).

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