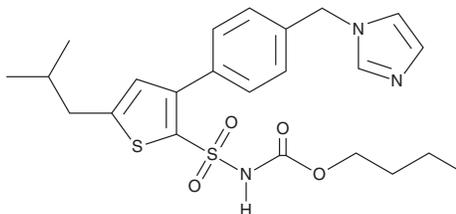


PRODUCT INFORMATION



AT₂ Agonist C21 Item No. 33758

CAS Registry No.: 477775-14-7
Formal Name: N-[[3-[4-(1H-imidazol-1-ylmethyl)phenyl]-5-(2-methylpropyl)-2-thienyl]sulfonyl]-carbamic acid, butyl ester
Synonym: Compound 21
MF: C₂₃H₂₉N₃O₄S₂
FW: 475.6
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

AT₂ agonist C21 is supplied as a solid. A stock solution may be made by dissolving the AT₂ agonist C21 in the solvent of choice, which should be purged with an inert gas. AT₂ agonist C21 is soluble in DMSO.

Description

AT₂ agonist C21 is an agonist of the angiotensin II type 2 (AT₂) receptor.¹ It selectively binds to the AT₂ receptor over the AT₁ receptor (K_is = 0.4 and >10 μM, respectively). AT₂ agonist C21 (0.1 μM) induces neurite outgrowth in NG 108-15 cells. It reduces mean arterial blood pressure in anaesthetized spontaneously hypertensive rats (SHRs) when administered at a dose of 0.05 mg/kg. AT₂ agonist C21 (0.03 mg/kg) reduces right ventricle hypertrophy and fibrosis, as well as lung interstitial and perivascular fibrosis, in a rat model of pulmonary hypertension induced by monocrotaline (MCT; Item No. 16666).² It increases survival and reduces neurological deficits in a mouse model of cerebral ischemia induced by middle cerebral artery occlusion (MCAO) when administered at the same dose.³

References

1. Wan, Y., Wallinder, C., Plouffe, B., *et al.* Design, synthesis, and biological evaluation of the first selective nonpeptide AT₂ receptor agonist. *J. Med. Chem.* **47(24)**, 5995-6008 (2004).
2. Bruce, E., Shenoy, V., Rathinasabapathy, A., *et al.* Selective activation of angiotensin AT₂ receptors attenuates progression of pulmonary hypertension and inhibits cardiopulmonary fibrosis. *Br. J. Pharmacol.* **172(9)**, 2219-2231 (2004).
3. Schwengel, K., Namsolleck, P., Lucht, K., *et al.* Angiotensin AT₂-receptor stimulation improves survival and neurological outcome after experimental stroke in mice. *J. Mol. Med. (Berl.)* **94(8)**, 957-966 (2016).

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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