

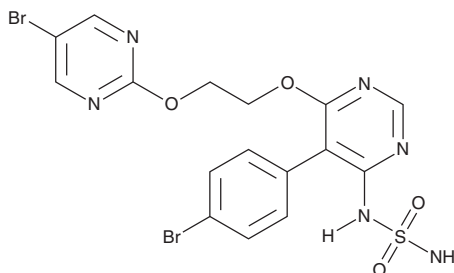
PRODUCT INFORMATION



Aprocitentan

Item No. 34915

CAS Registry No.: 1103522-45-7
Formal Name: N-[5-(4-bromophenyl)-6-[2-[(5-bromo-2-pyrimidinyl)oxy]ethoxy]-4-pyrimidinyl]-sulfamide
Synonym: ACT-132577
MF: C₁₆H₁₄Br₂N₆O₄S
FW: 546.2
Purity: ≥98%
UV/Vis.: λ_{max}: 259 nm
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

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

Description

Aprocitentan is a dual endothelin type A (ET_A) and ET_B receptor antagonist and an active metabolite of macitentan (Item No. 23304).¹ It is formed from macitentan by the cytochrome P450 (CYP) isoform CYP3A4. Aprocitentan inhibits increases in intracellular calcium induced by endothelin-1 (ET-1) in primary human pulmonary arterial smooth muscle cells (HPASMCs; IC₅₀ = 14 nM), ET-1-induced contractions in isolated rat aortic rings (pA₂ = 6.7 for ETA), and sarafotoxin S6c-induced contractions of isolated rat tracheal rings (pK_B = 5.5 for ETB).² It reduces ET-1-induced increases in the proliferation of isolated human skin fibroblasts when used at concentrations of 10 and 100 μM.³ Aprocitentan (10-300 mg/kg) increases plasma ET-1 concentrations in normotensive rats and decreases mean arterial pressure (MAP) in DOCA-salt hypertensive rats.⁴

References

1. Dingemane, J., Sidharta, P.N., Maddrey, W.C., *et al.* Efficacy, safety and clinical pharmacology of macitentan in comparison to other endothelin receptor antagonists in the treatment of pulmonary arterial hypertension. *Expert Opin. Drug Saf.* **13**(3), 391-405 (2013).
2. Iglarz, M., Binkert, C., Morrison, K., *et al.* Pharmacology of macitentan, an orally active tissue-targeting dual endothelin receptor antagonist. *J. Pharmacol. Exp. Ther.* **327**(3), 736-745 (2008).
3. Cutolo, M., Montagna, P., Brizzolara, R., *et al.* Effects of macitentan and its active metabolite on cultured human systemic sclerosis and control skin fibroblasts. *J. Rheumatol.* **42**(3), 456-463 (2015).
4. Trenz, F., Bortolamiol, C., Kramberg, M., *et al.* Pharmacological characterization of aprocitentan, a dual endothelin receptor antagonist, alone and in combination with blockers of the renin angiotensin system, in two models of experimental hypertension. *J. Pharmacol. Exp. Ther.* **368**(3), 462-476 (2019).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM