

PRODUCT INFORMATION



A-1899

Item No. 43018

CAS Registry No.: 498577-46-1

Formal Name: N-[(2,4-difluorophenyl)methyl]-2'-[[[2-(4-methoxyphenyl)acetyl]amino]methyl]-[1,1'-biphenyl]-2-carboxamide

Synonym: S-20951

MF: C₃₀H₂₆F₂N₂O₃

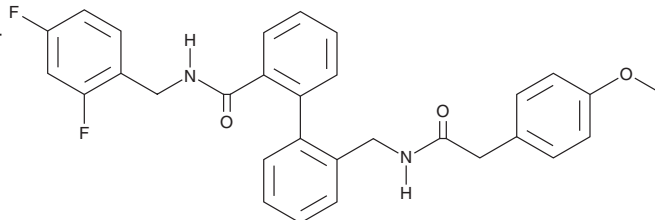
FW: 500.5

Purity: ≥95%

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

A-1899 is supplied as a solid. A stock solution may be made by dissolving the A-1899 in the solvent of choice, which should be purged with an inert gas. A-1899 is soluble (≥10 mg/ml) in DMSO.

Description

A-1899 is an inhibitor of the two-pore domain potassium channel 3.1 (K_{2p}3.1/TASK1; IC₅₀ = 0.035 μM in *Xenopus* oocytes expressing the human channel).¹ It is selective for K_{2p}3.1/TASK1 over K_{2p}5.1/TASK2, K_{2p}9.1/TASK3, and K_{2p}17.1/TASK4 (IC₅₀s = 12, 0.318, and 8.1 μM, respectively) and a panel of 16 additional potassium channels at 0.1 μM. A-1899 (3 mg/kg) selectively increases the effective refractory period (ERP) in the left atrium over the right atrium and does not affect ventricular repolarization in anesthetized pigs.² It stimulates breathing and induces respiratory alkalosis in spontaneously breathing anesthetized rats when administered at a dose of 25 mg/kg.³

References

1. Streit, A.K., Netter, M.F., Kempf, F., *et al.* A specific two-pore domain potassium channel blocker defines the structure of the TASK-1 open pore. *J. Biol. Chem.* **286**(16), 13977-13984 (2011).
2. Knobloch, K., Brendel, J., Peukert, S., *et al.* Electrophysiological and antiarrhythmic effects of the novel I_{Kur} channel blockers, S9947 and S20951, on left vs. right pig atrium in vivo in comparison with the I_{Kr} blockers dofetilide, azimilide, d,l-sotalol and ibutilide. *Naunyn Schmiedebergs Arch Pharmacol.* **366**(5), 482-487 (2002).
3. Cotten, J.F. TASK-1 (KCNK3) and TASK-3 (KCNK9) tandem pore potassium channel antagonists stimulate breathing in isoflurane-anesthetized rats. *Anesth. Analg.* **116**(4), 810-816 (2013).

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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