

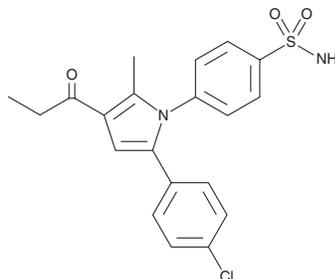
PRODUCT INFORMATION



A-867744

Item No. 32974

CAS Registry No.: 1000279-69-5
Formal Name: 4-[5-(4-chlorophenyl)-2-methyl-3-(1-oxopropyl)-1H-pyrrol-1-yl]-benzenesulfonamide
MF: C₂₀H₁₉ClN₂O₃S
FW: 402.9
Purity: ≥98%
UV/Vis.: λ_{max}: 251 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

A-867744 is supplied as a crystalline solid. A stock solution may be made by dissolving the A-867744 in the solvent of choice, which should be purged with an inert gas. A-867744 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of A-867744 in these solvents is approximately 10 mg/ml in DMSO and 30 mg/ml in DMF.

A-867744 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, A-867744 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. A-867744 has a solubility of approximately 0.20 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

A-867744 is a positive allosteric modulator of α7 nicotinic acetylcholine receptors (nAChRs).¹ It is selective for α7 nAChRs over α3β2- or α4β2 subunit-containing nAChRs (IC₅₀s = 0.023, 19.5 and 6.4 μM, respectively) and the serotonin (5-HT) receptor subtype 5-HT_{3A} (K_i = >30 μM). A-867744 potentiates ACh-induced currents in *Xenopus* oocytes expressing human α7 nAChRs (EC₅₀ = ~1 μM). *In vivo*, A-867744 (0.1-10 μmol/kg, i.p.) improves sensory gating deficits in a paired auditory stimulus paradigm in mice.²

References

1. Malysz, J., Grønlien, J.H., Anderson, D.J., *et al.* In vitro pharmacological characterization of a novel allosteric modulator of α7 neuronal acetylcholine receptor, 4-(5-(4-chlorophenyl)-2-methyl-3-propionyl-1H-pyrrol-1-yl)benzenesulfonamide (A-867744), exhibiting unique pharmacological profile. *J. Pharmacol. Exp. Ther.* **330**(1), 257-267 (2009).
2. Faghih, R., Gopalakrishnan, S.M., Gronlien, J.H., *et al.* Discovery of 4-(5-(4-chlorophenyl)-2-methyl-3-propionyl-1H-pyrrol-1-yl)benzenesulfonamide (A-867744) as a novel positive allosteric modulator of the α7 nicotinic acetylcholine receptor. *J. Med. Chem.* **52**(10), 3377-3384 (2009).

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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