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Produktinformation

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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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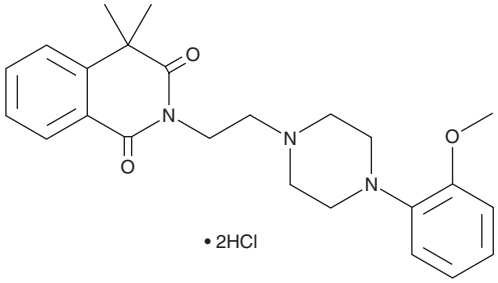
PRODUCT INFORMATION

ARC 239 (hydrochloride)

Item No. 36218

CAS Registry No.: 55974-42-0
Formal Name: 2-[2-[4-(2-methoxyphenyl)-1-piperazinyl] ethyl]-4,4-dimethyl-1,3(2H,4H)-isoquinolinedione, dihydrochloride
MF: $C_{24}H_{29}N_3O_3 \bullet 2HCl$
FW: 480.4
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

ARC 239 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the ARC 239 (hydrochloride) in water. We do not recommend storing the aqueous solution for more than one day.

Description

ARC 239 is an antagonist of α_{2B}-adrenergic receptors (α_{2B}-ARs; K_i = 87.1 nM).[1-3] It is selective for α_{2B}-ARs over α_{2A}-ARs (K_i = 3,548 nM) but also inhibits α_{2C}-ARs (K_i = 112.2 nM) and the serotonin (5-HT) receptor subtype 5-HT_{1A} (K_i = 63.1 nM).[2,3] ARC 239 also binds to α_{1A}-, α_{1B}-, and α_{1D}-adrenergic receptors (K_ds = 0.45, 7.08, and 1.82 nM, respectively) but only induces the release of intracellular calcium in CHO cells expressing the α_{1B}-adrenergic receptors with an EC_{50} value of 100 µM.[4] It has commonly been used to determine the selectivity of α_2-adrenergic receptor agonists and antagonists.[5,6]

References

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3. Meana, J.J., Callado, L.F., Pazos, A., *et al.* The subtype-selective α_2-adrenoceptor antagonists BRL 44408 and ARC 239 also recognize 5-HT_{1A} receptors in the rat brain. *Eur. J. Pharmacol.* **312(3)**, 385-388 (1996).
4. Proudman, R.G.W., Pupo, A.S., and Baker, J.G. The affinity and selectivity of α-adrenoceptor antagonists, antidepressants, and antipsychotics for the human α1A, α1B, and α1D-adrenoceptors. *Pharmacol. Res. Perspect.* **8(4)**, e00602 (2020).
5. Lee, H.G., Choi, J.I., Kim, Y.O., *et al.* The role of alpha-2 adrenoceptor subtype in the antiallodynic effect of intraplantar dexmedetomidine in a rat spinal nerve ligation model. *Neurosci. Lett.* **557(Pt B)**, 118-122 (2013).
6. Millan, M.J. Evidence that an α_{2A}-adrenoceptor subtype mediates antinociception in mice. *Eur. J. Pharmacol.* **215(2-3)**, 355-356 (1992).

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