Atipamezole (hydrochloride)
Item No. 9001181

CAS Registry No.: 104075-48-1
Formal Name: 5-(2-ethyl-2,3-dihydro-1H-inden-2-yl)-1H-imidazole, monohydrochloride
Synonym: Antisedan®
MF: C14H16N2 • HCl
FW: 248.8
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis: \( \lambda_{\text{max}} = 213 \text{ nm} \)

Laboratory Procedures
For long term storage, we suggest that atipamezole (hydrochloride) be stored as supplied at -20°C. It should be stable for at least two years.

Atipamezole (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the atipamezole (hydrochloride) in the solvent of choice. Atipamezole (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of atipamezole (hydrochloride) in ethanol and DMSO is approximately 10 mg/ml and approximately 1 mg/ml in DMF.

Atipamezole (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, atipamezole (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Atipamezole (hydrochloride) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Atipamezole is an imidazole that potently antagonizes the \( \alpha_2 \)-adrenoceptor (\( K_I = 1.6 \text{ nM} \)).\(^1\,^2\) It shows selectivity over the \( \alpha_1 \)-adrenoceptor (\( K_I = 13,300 \text{ nM} \)) and is a poor antagonist at a wide variety of other receptors and channels.\(^2\) Through its effects at the \( \alpha_2 \)-adrenoceptor, atipamezole reverses the sedative and anergic effects of \( \alpha_2 \)-adrenoceptor agonists, alters cognitive functions and sexual behavior, and has neuroprotective effects.\(^3\) It may also potentiate the effects of dopaminergic drugs used in Parkinson’s disease.\(^2\,^3\)

References
3. Haapalina, A., Leino, T., and Heinonen, E. The \( \alpha_2 \)-adrenoceptor antagonist atipamezole potentiates anti-Parkinsonian effects and can reduce the adverse cardiovascular effects of dopaminergic drugs in rats. Naunyn Schmiedebergs Arch. Pharmacol. 368, 342-351 (2003).

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/9001181

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent to your institution.

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