Benzamil hydrochloride hydrate

Catalog Number B2417
Storage Temperature 2–8 °C

Synonym: N-(benzylamidino)-3,5-diamino-6-chloropyrazinecarboxamide hydrochloride hydrate

Product Description
Benzamil, the Nω-benzyl derivative of amiloride, is a compound that is used in ion channel research. It is a selective and potent blocker of Na+/H+ and Na+/Ca2+ channels. The blockage of the mechanosensitive cation selective channel in *Xenopus laevis* oocytes has been studied.

Benzamil has been used at 1–100 µM in a study of cultured cortical rat astrocytes to probe the role of arginine vasopressin cell volume regulation.

Benzamil has been shown to diminish the basal short circuit current in a study of Cl- channel activation, both in freshly isolated and in monolayer cultured alveolar epithelial cells. A scintillation proximity assay to study Na+/Cl- dependent neurotransmitter transporter activity has been developed and used to probe benzamil-disrupted glycine accumulation in human placental choriocarcinoma cells.

An HPLC method for analysis of benzamil, amiloride, and related compounds from plasma has been published.

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions
This product is soluble in methanol (10 mg/ml), with heat and sonication as needed, yielding a clear to slightly hazy, faint yellow solution. It is also soluble in ethanol (6 mg/ml) and water (2 mg/ml).

References