

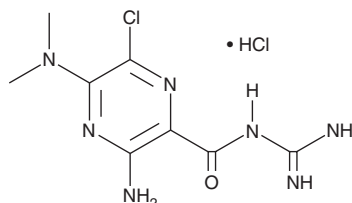
PRODUCT INFORMATION



5-(N,N-dimethyl)-Amiloride (hydrochloride)

Item No. 19100

CAS Registry No.: 2235-97-4
Formal Name: 3-amino-N-(aminoiminomethyl)-6-chloro-5-(dimethylamino)-2-pyrazinecarboxamide, monohydrochloride
Synonyms: DMA, L-591,605, MK-685
MF: C₈H₁₂ClN₇O • HCl
FW: 294.1
Purity: ≥98%
UV/Vis.: λ_{max}: 231, 294, 374 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

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

DMA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, DMA should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. DMA 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.

Description

Sodium-hydrogen exchangers (NHE) are involved in maintaining sodium and pH balance in a variety of tissues. They are also known as sodium-hydrogen antiporters and solute carrier family 9 members. DMA inhibits NHE1, NHE2, and NHE3 with K_i values of 0.02, 0.25, and 14 μM, respectively.¹ Because HNE1 is present in dorsal root ganglion and spinal cord, DMA was investigated for its ability to reduce inflammatory pain in rat nociception behavior tests.²

References

1. Masereel, B., Pochet, L., and Laeckmann, D. An overview of inhibitors of Na⁺/H⁺ exchanger. *Eur. J. Med. Chem.* **38**(6), 547-554 (2003).
2. Rocha-González, H.I., Castadeñeda-Corral, G., Araiza-Saldaña, C.I., *et al.* Identification of the Na⁺/H⁺ exchanger 1 in dorsal root ganglion and spinal cord: Its possible role in inflammatory nociception. *Neuroscience* **160**(1), 156-164 (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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