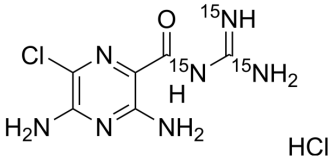
Amiloride-15N3 hydrochloride

Cat. No.:	HY-B0285AS
CAS No.:	1216796-18-7
Molecular Formula:	$C_6H_9Cl_2N_4{}^{15}N_3O$
Molecular Weight:	269.07
Target:	Apoptosis; TRP Channel; Sodium Channel
Pathway:	Apoptosis; Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Amiloride-$^{15}N_3$ (hydrochloride) is the ^{15}N labeled Amiloride hydrochloride[1]. Amiloride hydrochloride (MK-870 hydrochloride) is an inhibitor of both epithelial sodium channel (ENaC[2]) and urokinase-type plasminogen activator receptor (uTPA[3]). Amiloride hydrochloride is a blocker of polycystin-2 (PC2;TRPP2[4]) channel.
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

[2]. Ji, H.L., et al. delta ENaC: a novel divergent amiloride-inhibitable sodium channel. Am J Physiol Lung Cell Mol Physiol, 2012. 303(12): p. L1013-26.

[3]. Teiwes J, et al. Epithelial sodium channel inhibition in cardiovascular disease. A potential role for amiloride. Am J Hypertens. 2007 Jan20(1):109-17.

[4]. Giamarchi A, et al. A polycystin-2 (TRPP2) dimerization domain essential for the function of heteromeric polycystin complexes. EMBO J. 2010 Apr 729(7):1176-91.

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