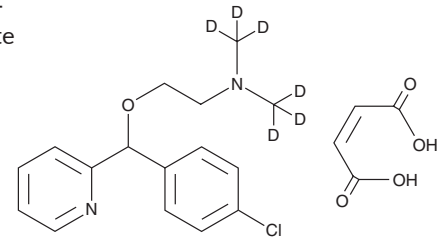
PRODUCT INFORMATION

Carbinoxamine-d_6 (maleate)

Item No. 34246

CAS Registry No.:	2747914-08-3
Formal Name:	2-[(4-chlorophenyl)-2-pyridinylmethoxy]-N,N-di(methyl-d_3)-ethanamine, (2Z)-2-butenedioate
MF:	$C_{16}H_{13}ClD_6N_2O \bullet C_4H_4O_4$
FW:	412.9
Chemical Purity:	≥90% (Carbinoxamine)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_6); ≤1% d_0
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

Carbinoxamine-d_6 is intended for use as an internal standard for the quantification of carbinoxamine (Item No. 23937) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Carbinoxamine-d_6 (maleate) is supplied as a solid. A stock solution may be made by dissolving the carbinoxamine-d_6 (maleate) in the solvent of choice, which should be purged with an inert gas. Carbinoxamine-d_6 (maleate) is soluble in acetonitrile and DMSO.

Description

Carbinoxamine is a competitive histamine H_1 receptor antagonist (K_i = 2.3 nM) and first generation antihistamine.[1] It is also an L-type calcium channel inhibitor (K_i = 1.08 nM).[2] Carbinoxamine decreases negative inotropic activity in isolated guinea pig left atria and negative chronotropic activity in guinea pig spontaneously beating isolated right atria (EC_{50}s = 250 and 480 nM, respectively). Formulations containing carbinoxamine have been used in the treatment of allergic rhinitis.

References

1. Tran, V.T., Chang, R.S.L., and Snyder, S.H. Histamine H_1 receptors identified in mammalian brain membranes with [^{3}H]mepyramine. *Proc. Natl. Acad. Sci. USA* **75(12)**, 6290-6294 (1978).
2. Carosati, E., Budriesi, R., Ioan, P., *et al.* Discovery of novel and cardioselective diltiazem-like calcium channel blockers *via* virtual screening. *J. Med. Chem.* **51(18)**, 5552-5565 (2008).

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