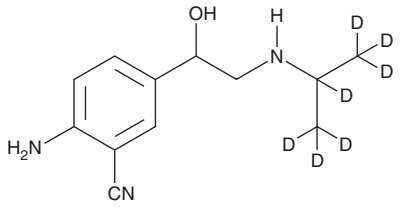
PRODUCT INFORMATION

Cimaterol-d_7

Item No. 28903

CAS Registry No.:	1228182-44-2
Formal Name:	2-amino-5-[1-hydroxy-2-[[1-(methyl-d_3)ethyl-1,2,2,2-d_4]amino]ethyl]-benzonitrile
Synonym:	Cimaterolum-d_7
MF:	$C_{12}H_{10}D_7N_3O$
FW:	226.3
Chemical Purity:	≥98% (Cimaterol)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_7); ≤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

Cimaterol-d_7 is intended for use as an internal standard for the quantification of cimaterol (Item No. 15613) 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).

Cimaterol-d_7 is supplied as a solid. A stock solution may be made by dissolving the cimaterol-d_7 in the solvent of choice, which should be purged with an inert gas. Cimaterol-d_7 is soluble in organic solvents such as methanol, DMSO, and dimethyl formamide.

Description

Cimaterol is a potent agonist of β-adrenergic receptors (pEC_{50}s = 8.13, 8.78, and 6.62 for human β_1, β_2, and β_3, respectively).[1] Formulations containing cimaterol have been used in farmed animals (swine, fowl, etc.) to increase carcass mass and to alter muscle and fat deposition.[2,3]

References

1. Mistry, S.N., Baker, J.G., Fischer, P.M., *et al.* Synthesis and in vitro and in vivo characterization of highly β1-selective β-adrenoceptor partial agonists. *J. Med. Chem.* **56(10)**, 3852-3865 (2013).
2. Jones, R.W., Easter, R.A., McKeith, F.K., *et al.* Effect of the β-adrenergic agonist cimaterol (CL 263,780) on the growth and carcass characteristics of finishing swine. *J. Anim. Sci.* **61(4)**, 905-913 (1985).
3. Byrem, T.M., Beermann, D.H., and Robinson, T.F. The β-agonist cimaterol directly enhances chronic protein accretion in skeletal muscle. *J. Anim. Sci.* **76(4)**, 988-998 (1998).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM