

Product Data Sheet

Product Name: Salmeterol-d3

Cat. No.: GC48067

Chemical Properties

Cas. No. 497063-94-2

SMILES OC([2H])([2H])C1=CC(C(O)([2H])CNCCCCCOC(CCC2=CC=CC=C2)=CC=C1O

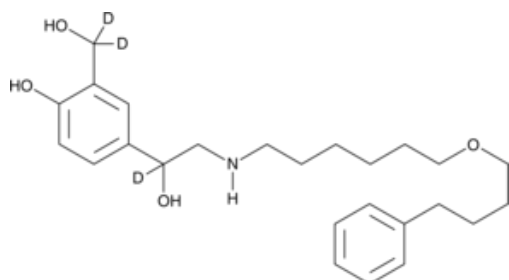
Formula C25H34D3NO4 M.Wt 418.6

Solubility DMSO: 100 mM, Ethanol: 50 mM Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Salmeterol-d₃ is intended for use as an internal standard for the quantification of salmeterol by GC- or LC-MS. Salmeterol is a long-acting β_2 -adrenergic receptor agonist (β_2 -AR; EC₅₀s = 0.79, 63.1, and 9.4 nM for β_2 -, β_1 -, and β_3 -ARs, respectively).¹ It inhibits electrically-stimulated contraction of isolated guinea pig trachea strips (EC₅₀ = 2.51 nM) and histamine-induced bronchoconstriction in guinea pigs *via* aerosol administration of doses ranging from 0.12 to 12 mM.² Salmeterol binds to an exosite domain of β_2 -adrenergic receptors, producing a slow onset of action and prolonged activation.³ Formulations containing salmeterol have been used in the treatment of asthma, including exercise-induced asthma, and chronic obstructive pulmonary disease.

1. Procopiu, P.A., Barrett, V.J., Ford, A.J., et al. The discovery of long-acting saligenin β_2 adrenergic

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

receptor agonists incorporating a urea group *Bioorg. Med. Chem.* 19(20)6026-6032(2011) 2. Ball, D.I., Brittain, R.T., Coleman, R.A., et al. Salmeterol, a novel, long-acting β 2-adrenoceptor agonist: Characterization of pharmacological activity in vitro and in vivo *Br. J. Pharmacol.* 104(3)665-671(1991) 3. Isin, B., Estiu, G., Wiest, O., et al. Identifying ligand binding conformations of the β 2-adrenergic receptor by using its agonists as computational probes *PLoS One* 7(12)e50186(2012)

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA