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siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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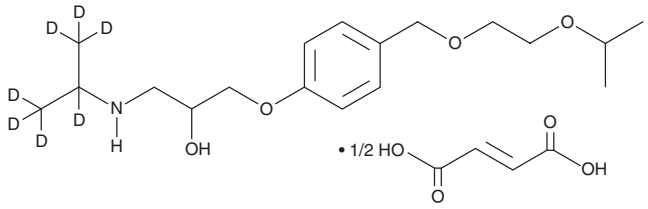
PRODUCT INFORMATION

Bisoprolol-d_7 (hemifumarate)

Item No. 30760

Formal Name: 1-(4-((2-isopropoxyethoxy)methyl) phenoxy)-3-((propan-2-yl-d_7)amino) propan-2-ol, hemifumarate
MF: $C_{18}H_{24}D_7NO_4 \bullet 1/2C_4H_4O_4$
FW: 390.5
Chemical Purity: ≥98% (Bisoprolol)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_7); ≤1% d_0
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Bisoprolol-d_7 (hemifumarate) is intended for use as an internal standard for the quantification of bisoprolol (Item No. 23827) 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).

Bisoprolol-d_7 (hemifumarate) is supplied as a solid. A stock solution may be made by dissolving the bisoprolol-d_7 (hemifumarate) in the solvent of choice, which should be purged with an inert gas. Bisoprolol-d_7 (hemifumarate) is slightly soluble in DMSO and methanol.

Description

Bisoprolol is a potent β-adrenergic receptor (β-AR) antagonist that is selective for β_1-ARs over β_2-ARs (K_is = 25 and 480 nM, respectively in S49 cells overexpressing the human receptors).[1] It also selectively binds to β_1-ARs over β_2-ARs in human myocardium (K_is = 75.8 and 991 nM, respectively).[2] Bisoprolol binds to rat ventricular myocytes and heart membrane (K_is = 20 and 38.1 nM, respectively) and to rat β_1-AR in salivary glands and β_2-AR in reticulocytes (K_is = 24 and 1,945 nM, respectively).[3,4] *In vivo*, it inhibits increases in heart rate induced by isoproterenol (Item No. 15592) in guinea pigs.[5] Bisoprolol (0.3 mg/kg) inhibits isoproterenol-induced increases in heart rate and myocardial contractility in conscious dogs. It also decreases blood pressure and heart rate in spontaneously hypertensive rats (SHRs) when chronically administered at a dose of 7.5 mg/kg twice per day over 19 weeks. Formulations containing bisoprolol have been used in the treatment of heart failure, angina pectoris, mild to moderate hypertension, and for secondary prevention of myocardial infarction.

References

1. Smith, C. and Teitler, M. *Cardiovasc. Drugs Ther.* **13(2)**, 123-126 (1999).
2. Bundkirchen, A., Brixius, K., Bölck, B., *et al. Eur. J. Pharmacol.* **460(1)**, 19-26 (2003).
3. Mauz, A.B. and Pelzer, H. *J. Cardiovasc. Pharmacol.* **15(3)**, 421-427 (1990).
4. Wellstein, A., Palm, D., and Belz, G.G. *J. Cardiovasc. Pharmacol.* **8(Suppl. 11)**, S36-S40 (1986).
5. Haeusler, G., Schliep, H.-J., Schelling, P., *et al. J. Cardiovasc. Pharmacol.* **8(Suppl. 11)**, S2-S15 (1986).

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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