Product Data Sheet

Product Name: Metoprolol Tartrate
Cat. No.: GC14536

Chemical Properties

Cas. No.	56392-17-7		
Chemical Name	(2R,3S)-2,3-dihydroxybutanedioic acid;1-[4-(2-methoxyethyl)phenoxy]-3-(propan-2-ylamino)propan-2-ol		
SMILES	CC(C)NCC(COC1=CC=C(C=C1)CCOC)O.CC(C)NCC(COC1=CC=C(C=C1)CCOC)O.C(C(C(=O)O)O)(C(=O)O)O		
Formula	C19H31NO9	M.Wt	342.41
Solubility	≥ 32.25mg/mL in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	Metoprolol Tartrate		

Background

Metoprolol is a cardioselective β1-adrenergic blocking agent.Target: β1- adrenergic ReceptorPatients took 50 mg metoprolol twice daily with weekly titration to response or 200 mg twice daily. beta(1)-adrenergic receptor polymorphisms are important determinants of antihypertensive response to metoprolol. In the future, codon 49 and 389 genotypes or beta(1)-adrenergic receptor haplotypes might be used to predict the diastolic blood pressure response to metoprolol in patients with hypertension [1]. Patients were studied at baseline and after each dose titration of metoprolol succinate (at 25, 50, 100, and 200 mg once/day) and immediate-release carvedilol (at 3.125, 6.25, 12.5, and 25 mg twice/day). As assessed by glucose AUC, there was no significant difference in the degree of beta(2)-blockade between metoprolol 200 mg and carvedilol 25 mg. In contrast to these data, the degree of beta(2)-blockade as assessed by potassium AUC was greater for carvedilol compared with metoprolol across all doses [2].

References:
[1]. Johnson, J.A., et al., Beta 1-adrenergic receptor polymorphisms and antihypertensive response to metoprolol. Clin Pharmacol Ther, 2003. 74(1): p. 44-52.
[2]. Zebrack, J.S., et al., Beta-receptor selectivity of carvedilol and metoprolol succinate in patients with heart failure (SELECT trial): a randomized dose-ranging trial. Pharmacotherapy, 2009. 29(8): p. 883-90.

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