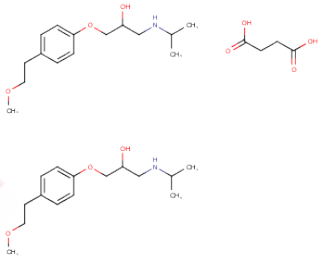
Data Sheet (Cat.No.T3165)

TargetMol

Metoprolol Succinate

Chemical Properties



CAS No. : 98418-47-4

Formula: C34H56N2O10

Molecular Weight: 652.82

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Metoprolol succinate is a selective adrenergic beta-1 blocking agent that is commonly used to treat ANGINA PECTORIS; HYPERTENSION; and CARDIAC ARRHYTHMIAS.
Targets(IC50)	Apoptosis,Adrenergic Receptor
Kinase Assay	In vitro biochemical assays against histone methyltransferases: Activity against EZH2 is assessed using 5 member PRC2 complex (Flag-EZH2, EED, SUZ12, AEBP2, RbAp48). The assay protocol may be summarized as follows: 10 mM stocks of compounds are prepared from solid in 100% DMSO. An 11 point serial dilution master plate is prepared in 384 well format (1:3 dilution, columns 6 and 18 were equal volume DMSO controls) and dispensed to assay ready plates using acoustic dispensing technology to create a 100 nL stamp of compound and DMSO controls. The assay additions consisted of equal volume additions of 10 nM EZH2 and the substrate solution (5 μg/mL HeLa nucleosomes and 0.25 μM [3H]-SAM) dispensed into assay plates using a multi-drop combi dispense. Reaction plates are incubated for 1 hr and quenched with an equal volume addition of 0.5 mg/mL PS-PEI Imaging Beads (RPNQ0098) containing 0.1 mM unlabeled SAM. The plates are sealed, dark adapted for 30 minutes, and a 5 minute endpoint luminescence image is acquired using a Viewlux imager. Plate statistics such as Z' and signal to background as well as dose response curves are analyzed using Activity BaseXE. The in vitro biochemical activity of EZH1 is assessed as part of a 5 member PRC2 complex using a 384 well SPA assay identical to EZH2. Buffer components, reagent dispensing, compound plate preparation, quench conditions and data analysis are identical for EZH1 and EZH2 with final assay concentrations of 20 nM EZH1, 5 μM/mL HeLa nucleosomes and 0.25 μM [3H]-SAM. Further data analysis, pIC50 pivots and visualizations are enabled by TIBCO Spotfire. Compounds are profiled at Reaction Biology Corp. (Malvern, PA) to assess inhibition in their panel of histone methyltransferase assays. Methyltransferase activity is assessed using HotSpot technology, a miniaturized radioisotope-based filter binding assay.Inhibitors are dissolved in dimethyl sulfoxide (DMSO) and tested at concentrations up to 100 uM with a final DMSO concentration of 2%. Buffer containing the methyltrasferase at the listed concentration and its preferred substrate as shown in the accompanying table is preincubated with compound for 10 min. Reactions are initiated by the addition of 1 uM S-adenosyl-L-[methyl-3H]methionine (SAM), allowed to incubate for 60 min at 30C followed by transfer to P81 filter-paper and PBS wash before detection.

Solubility Information

Solubility	H2O: 153.2 mM,Sonication is recommended. DMSO: 153.2 mM,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 1 mg/mL (1.53 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.5318 mL	7.6591 mL	15.3182 mL
5 mM	0.3064 mL	1.5318 mL	3.0636 mL
10 mM	0.1532 mL	0.7659 mL	1.5318 mL
50 mM	0.0306 mL	0.1532 mL	0.3064 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Benfield P, et al. Drugs. 1986 May;31(5):376-429.