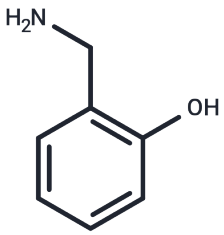
Data Sheet (Cat.No.T41358)

TargetMol

2-Hydroxybenzylamine

Chemical Properties



CAS No. : 932-30-9

Formula: C7H9NO

Molecular Weight: 123.15

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	2-Hydroxybenzylamine, a potent small molecule scavenger of IsoLGs, sequesters the reactive species as inert adducts. 2-Hydroxybenzylamine may be used to decrease early recurrence of atrial fibrillation and other atrial arrhythmias following atrial fibrillation ablation by decreasing IsoLG adducts with native biomolecules.
Targets(IC50)	Others,Reactive Oxygen Species,ROS
In vivo	Compared to hypercholesterolemic Ldlr-/- mice treated with vehicle or 4-Hydroxybenzylamine, a nonreactive analogue, 2-Hydroxybenzylamine decreases atherosclerosis by 60% in en face aortas, without changing plasma cholesterol. Ldlr-/- mice treated with 2-Hydroxybenzylamine have reduced MDA-LDL and MDA-HDL levels, and their HDL display increased capacity to reduce macrophage cholesterol. Importantly, 2-Hydroxybenzylamine reduces the MDA- and IsoLG-lysyl content in atherosclerotic aortas versus 4-Hydroxybenzylamine. Furthermore, 2-Hydroxybenzylamine reduces inflammation and plaque apoptotic cells and promotes efferocytosis and features of stable plaques. Dicarbonyl scavenging with 2-Hydroxybenzylamine has multiple atheroprotective effects in a murine FH model[2].

Solubility Information

Solubility	DMSO: 45 mg/mL (365.41 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: 2 mg/mL (16.24 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	8.1202 mL	40.6009 mL	81.2018 mL
5 mM	1.624 mL	8.1202 mL	16.2404 mL
10 mM	0.812 mL	4.0601 mL	8.1202 mL
50 mM	0.1624 mL	0.812 mL	1.624 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

O'Neill MJ, et al. 2-Hydroxybenzylamine (2-HOBA) to prevent early recurrence of atrial fibrillation after catheter ablation: protocol for a randomized controlled trial including detection of AF using a wearable device. Trials. 2021 Aug 28;22(1):576.

Tao H, et al. Scavenging of reactive dicarbonyls with 2-hydroxybenzylamine reduces atherosclerosis in hypercholesterolemic Ldlr-/- mice. Nat Commun. 2020 Aug 14;11(1):4084.

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