

BC1618

Chemical Properties

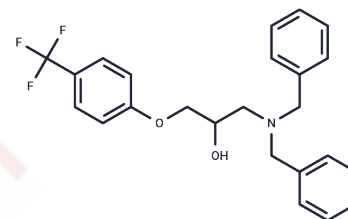
CAS No. : 2222094-18-8

Formula: C₂₄H₂₄F₃NO₂

Molecular Weight: 415.45

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	BC1618 (2-Propanol, 1-[bis(phenylmethyl)amino]-3-[4-(trifluoromethyl)phenoxy]-) is an orally active Fbxo48 inhibitor that stimulates Ampk-dependent signaling. It promotes mitochondrial fission, promotes autophagy and improves hepatic insulin sensitivity.
Targets(IC50)	Mitophagy, E1/E2/E3 Enzyme, AMPK
In vivo	BC1618, whose potency in stimulating Ampk-dependent signaling greatly exceeds 5-aminoimidazole-4-carboxamide-1-β-ribofuranoside (AICAR) or metformin. This compound increases the biological activity of Ampk not by stimulating the activation of Ampk, but rather by preventing activated pAmpkα from Fbxo48-mediated degradation. Consistent with augmenting Ampk activity, BC1618 promotes mitochondrial fission, facilitates autophagy and improves hepatic insulin sensitivity in high-fat-diet-induced obese mice[1].

Solubility Information

Solubility	DMSO: 100 mg/mL (240.7 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (7.94 mM), Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.407 mL	12.0351 mL	24.0703 mL
5 mM	0.4814 mL	2.407 mL	4.8141 mL
10 mM	0.2407 mL	1.2035 mL	2.407 mL
50 mM	0.0481 mL	0.2407 mL	0.4814 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

Yuan Liu, et al. A Fbxo48 inhibitor prevents pAMPK α degradation and ameliorates insulin resistance. Nat Chem Biol. 2021 Mar;17(3):298-306.

Marquet R L , Bruin R , Dallinga R J , et al. Modulation of tumor growth by allogeneic blood transfusion[J]. J Cancer Res Clin Oncol, 1986, 111(1):50-53.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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