M084

Cat. No.: HY-133859

CAS No.: 51314-51-3

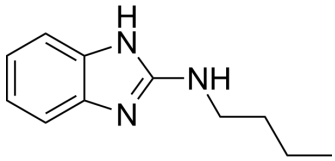
Molecular Formula: $C_{11}H_{15}N_3$

Molecular Weight: 189.26

Target: Mitochondrial Metabolism

Pathway: Metabolic Enzyme/Protease

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (660.47 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	5.2837 mL	26.4187 mL	52.8374 mL
	5 mM	1.0567 mL	5.2837 mL	10.5675 mL
	10 mM	0.5284 mL	2.6419 mL	5.2837 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (10.99 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (10.99 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (10.99 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

M084 is a benzimidazole derivative. M084 inhibits the mitochondrial respiration, activate mitochondrial unfolded protein response and AMPK, recruites SIR-2.1 and SKN-1, and finally through the transcription factor DAF-16, delays the aging process of C. elegans[1].

REFERENCES

[1]. Ai-Jun Ding, et al. Benzimidazole derivative M084 extends the lifespan of Caenorhabditis elegans in a DAF-16/FOXO-dependent way. Mol Cell Biochem. 2017 Feb;426(1-

2):101-109.

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