

SAFit2

Chemical Properties

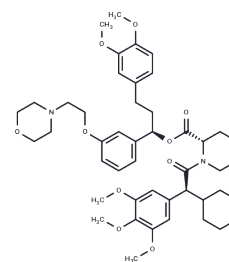
CAS No. : 1643125-33-0

Formula: C₄₆H₆₂N₂O₁₀

Molecular Weight: 802.99

Storage: Store at low temperature, Keep away from moisture
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	SAFit2 is a highly potent and selective inhibitor of fk506 binding protein 51 (FKBP51) with a K_i value of 6 nM. SAFit2 can enhance the binding of AKT2-AS160 and participate in the downstream response of glucocorticoid release in vivo. It is a candidate compound for the treatment of obesity, chronic pain, depression and anxiety.
Targets(IC50)	FKBP
In vitro	METHODS: The effects of SAFit2 (1, 5, 10 μ M) on macrophage migration were evaluated in a Transwell assay. RESULTS SAFit2 significantly reduced macrophage migration in a concentration-dependent manner. [4]
In vivo	METHODS: SAFit2 (20 mg/kg, intraperitoneal injection, twice a day, 10 days) was administered to mice and glucose tolerance was observed. RESULTS SAFit2 treatment significantly improved glucose tolerance. [1]

Solubility Information

Solubility	DMSO: 87.5 mg/mL (108.97 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: 3.3 mg/mL (4.11 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	1.2453 mL	6.2267 mL	12.4535 mL
5 mM	0.2491 mL	1.2453 mL	2.4907 mL
10 mM	0.1245 mL	0.6227 mL	1.2453 mL
50 mM	0.0249 mL	0.1245 mL	0.2491 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

- Balsevich G, et al. Stress-responsive FKBP51 regulates AKT2-AS160 signaling and metabolic function. *Nat Commun.* 2017 Nov 23;8(1):1725.
- Gaali S, et al. Rapid, Structure-Based Exploration of Pipecolic Acid Amides as Novel Selective Antagonists of the FK506-Binding Protein 51. *J Med Chem.* 2016 Mar 24;59(6):2410-22.
- Hartmann J, et al. Pharmacological Inhibition of the Psychiatric Risk Factor FKBP51 Has Anxiolytic Properties. *J Neurosci.* 2015;35(24):9007-9016.
- Wedel S, et al. SAFit2 reduces neuroinflammation and ameliorates nerve injury-induced neuropathic pain. *J Neuroinflammation.* 2022 Oct 10;19(1):254.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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