

MC-70

Chemical Properties

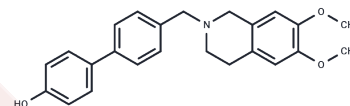
CAS No. : 1031367-64-2

Formula: C₂₄H₂₅NO₃

Molecular Weight: 375.46

Storage: Keep away from moisture, Store at low temperature
 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	MC-70 is an effective P-gp (P-glycoprotein) inhibitor (EC ₅₀ =0.69 μM), also acting as an ABC transporter inhibitor and anticancer agent. It interacts with ABCB1, ABCG2, and ABCC1, inhibiting colon cancer cell growth and inducing apoptosis.
Targets(IC50)	Apoptosis, ABC Transporter, P-gp

Solubility Information

Solubility	DMSO: 200 mg/mL (532.68 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6634 mL	13.317 mL	26.634 mL
5 mM	0.5327 mL	2.6634 mL	5.3268 mL
10 mM	0.2663 mL	1.3317 mL	2.6634 mL
50 mM	0.0533 mL	0.2663 mL	0.5327 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

Guglielmo S, et al. Structure-Activity Relationship Studies on Tetrahydroisoquinoline Derivatives: [4'-(6,7-Dimethoxy-3,4-dihydro-1H-isoquinolin-2-ylmethyl)biphenyl-4-ol] (MC70) Conjugated through Flexible Alkyl Chains with Furazan Moieties Gives Rise to Potent and Selective Ligands of P-glycoprotein. *J Med Chem.* 2016;59(14):6729-6738.

Azzariti A, Quatralo AE, Porcelli L, et al. MC70 potentiates doxorubicin efficacy in colon and breast cancer in vitro treatment. *Eur J Pharmacol.* 2011;670(1):74-84.

Capparelli E, et al. Functionalized Coumarine Fragment to Obtain Fluorescent and Selective P-Glycoprotein Ligands. *Arch Pharm (Weinheim).* 2016 Mar;349(3):161-7. doi: 10.1002/ardp.201500325. Epub 2016 Jan 11.

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