

MS-444

Chemical Properties

CAS No. : 150045-18-4

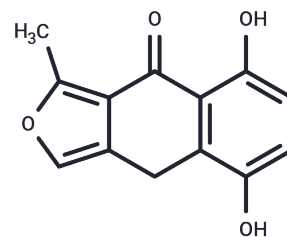
Formula: C₁₃H₁₀O₄

Molecular Weight: 230.22

Storage: Keep away from direct sunlight, 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	MS-444 (BE-34776) is a smooth muscle myosin light chain kinase (MLCK) and HuR inhibitor with antitumor activity for triple-negative breast and colorectal cancer.
Targets(IC50)	Myosin, Serine/threonin kinase
In vitro	MS-444 is a small molecule RNA-binding protein HuR (ELAVL1) inhibitor. Colorectal cancer (CRC) cells that show HuR overexpression are treated with MS-444 (1-100 μ M) for 48 hr (HCT116 IC ₅₀ =10.98 μ M, HCA-7 IC ₅₀ =12.84 μ M, RKO IC ₅₀ =5.60 μ M, HT-29 IC ₅₀ =14.21 μ M, and SW480 IC ₅₀ =10.98 μ M). Contrasting effects are observed using non-transformed small intestinal (RIE-1 IC ₅₀ =40.70 μ M) and colonic epithelial cells (YAMC IC ₅₀ =28.16 μ M). [1]
In vivo	Mice bearing HCT116 cell xenografts receive intraperitoneal injections of MS-444 (25 mg/kg) or vehicle every 48 hr to test the effects of MS-444 on CRC cell growth in vivo. Anti-tumor effects of MS-444 are observed with an approximately 1.7-fold reduction in tumor size. Mice treated with MS-444 shows a marked 2- to 3-fold reduction in microvessel density (MVD), showing the anti-angiogenic potential of MS-444. [1]

Solubility Information

Solubility	DMSO: 40 mg/mL (173.75 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	4.3437 mL	21.7184 mL	43.4367 mL
5 mM	0.8687 mL	4.3437 mL	8.6873 mL
10 mM	0.4344 mL	2.1718 mL	4.3437 mL
50 mM	0.0869 mL	0.4344 mL	0.8687 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

Blanco FF, et al. Impact of HuR inhibition by the small molecule MS-444 on colorectal cancer cell tumorigenesis. *Oncotarget*. 2016 Nov 8;7(45):74043-74058.

Nakanishi S, et al. MS-444, a new inhibitor of myosin light chain kinase from *Micromonospora* sp. KY712J *Antibiot (Tokyo)*. 1995 Sep;48(9):948-51.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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