Product Data Sheet

Product Name: Ro 41-5253
Cat. No.: GC66433

Chemical Properties

Cas. No.	144092-31-9		
Formula	$C_{28}H_{36}O_5S$	M.Wt	484.65
Solubility		Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Ro 41-5253		

Background

IC50: 60 nM (RARα), 2.4 μM (RARβ), 3.3 μM (RARγ)[3].

Ro 41-5253 is an orally active selective retinoic acid receptor alpha (**RARα**) antagonist. Ro 41-5253 can bind RARα without inducing transcription or affecting RAR/RXR heterodimerization and DNA binding. Ro 41-5253 can inhibit cancer cell proliferation and induce **apoptosis, has antitumor activity[1][2].**

Ro 41-5253 (1 nM-10 μM, 10 days) significantly inhibits MCF-7 and ZR 75.1 cell proliferation and induces cell apoptosis in a time and dose-dependent manner[1].

Cell Proliferation Assay[1]

Cell Line:	Human breast-carcinoma lines MCF-7 and ZR 75.1
Concentration:	1 nM-10 μM
Incubation Time:	10 days

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Result:	Inhibited 81% MCF-7 cell growth at 10 μM, 30% cell growth at 1 μM and no significant inhibitory effect at concentrations below 0.1 μM.Inhibited 74% ZR 75.1 cell growth at 10 μM, 63% cell growth at 1 μM and 42% cell growth at 0.1 μM.

Apoptosis Analysis[1]

Cell Line:	Human breast-carcinoma lines MCF-7 and ZR 75.1
Concentration:	1 nM-10 μM
Incubation Time:	10 days
Result:	Induced 28.5, 21.6, 16 and 12% of MCF-7 cells apoptosis at 10 μM, 1 μM, 0.1 μM and 0.01 μM respectively on the fourth day while induced 58, 51, 36 and 21% of cells apoptosis at 10 μM, 1 μM, 0.1 μM and 0.01 μM respectively after six days.Induced 80, 65, 43 and 29% of ZR 75.1 cells apoptosis at 10 μM, 1 μM, 0.1 μM and 0.01 μM respectively on the sixth day.

Ro 41-5253 (oral gavage, 10-600 mg/kg, once a week, 4 weeks) can reduce tumor volume in female athymic Balb/mice transplanted with MCF-7 cell line[2].

Animal Model:	Six-week-old female athymic Balb/mice transplanted with MCF-7 cell line[2]
Dosage:	10, 30, 100, 300 and 600 mg/kg
Administration:	Oral gavage; once a week; 4 weeks
Result:	Resulted in a reduction in tumor volume at doses of 10, 30 and 100 mg/kg with no toxic side effects.

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