Product Data Sheet

Product Name: ONO-8711 dicyclohexylamine
Cat. No.: GC67726

Chemical Properties

Cas. No.

Formula	$C_{34}H_{53}ClN_2O_4S$	M.Wt	621.31
Solubility	DMSO : 50 mg/mL (80.48 mM; ultrasonic and warming and heat to 60°C)	Storage	4°C, away from moisture
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	ONO-8711 dicyclohexylamine		

Background

ONO-8711 dicyclohexylamine is a selective and orally active **EP1** competitive antagonist with $\mathbf{K_i}$ value of 0.6 nM and 1.7 nM for human and mouse EP1 respectively. ONO-8711 dicyclohexylamine effectively reduces tumor incidence and multiplicity in mouse models of colon, breast, and oral cancer[1].

ONO-8711 (10 and 30 μM; 30 min) blocks the contractions induced by sulprostone in human pulmonary veins in a non-competitive manner[2].
ONO-8711 inhibits PGE_2-induced increase in cytosolic Ca^{2+} concentration with IC_{50}s of 0.21 μM, 0.05 μM, and 0.22 μM for the mouse, human, and rat receptors, respectively[3].

ONO-8711 (400 or 800 p.p.m.; p.o.; for 20 weeks) suppresses cancer incidence and delays occurrence of breast tumors[3].

Animal Model:	Female Sprague-Dawley rats (induced breast cancer by gavage of 85 mg/kg PhIP 4 times for 2 weeks)

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Dosage:	400 or 800 p.p.m.
Administration:	p.o.; for 20 weeks
Result:	Did not induce any symptoms of toxicity at 800 p.p.m..Delayed occurrence of breast tumors for 2 or 4 weeks at 400 or 800 p.p.m., respectively.Significantly suppressed cancer incidence compared with the control diet group at 800 p.p.m. (56% versus 79%, $P < 0.05$).

[1]. Watanabe K, et al. Role of the prostaglandin E receptor subtype EP1 in colon carcinogenesis. Cancer Res. 1999 Oct 15;59(20):5093-6.
[2]. Norel X, et al. Vasoconstriction induced by activation of EP1 and EP3 receptors in human lung: effects of ONO-AE-248, ONO-DI-004, ONO-8711 or ONO-8713. Prostaglandins Other Lipid Mediat. 2004 Oct;74(1-4):101-12.
[3]. Kawamori T, et al. Chemopreventive effects of ONO-8711, a selective prostaglandin E receptor EP(1) antagonist, on breast cancer development. Carcinogenesis. 2001 Dec;22(12):2001-4.

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