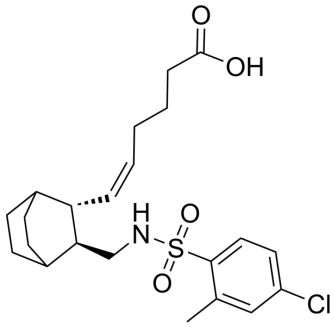
ONO-8711

Cat. No.:	HY-12182
CAS No.:	216158-34-8
Molecular Formula:	$C_{22}H_{30}ClNO_4S$
Molecular Weight:	440
Target:	Prostaglandin Receptor
Pathway:	GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	ONO-8711 is a potent and selective competitive antagonist of EP1 receptor (K_i = 0.6 and 1.7 nM for human and mouse EP1 respectively). ONO-8711 effectively reduces tumor incidence and multiplicity in mouse models of colon, breast, and oral cancer[1].
IC_{50} & Target	EP
In Vitro	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]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	ONO-8711 (400 or 800 p.p.m.; p.o.; for 20 weeks) suppresses cancer incidence and delays occurrence of breast tumors[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Female Sprague-Dawley rats (induced breast cancer by gavage of 85 mg/kg PhIP (HY-118716) 4 times for 2 weeks)
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).

REFERENCES

[1]. 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.

[2]. 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.

[3]. Watanabe K, et al. Role of the prostaglandin E receptor subtype EP1 in colon carcinogenesis. Cancer Res. 1999 Oct 15;59(20):5093-6.

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