

Product Data Sheet

Product Name: ONO-8711

Cat. No.: GC16027

Chemical Properties

Cas. No. 216158-34-8

Chemical Name 6-[(2R,3S)-3-[[[(4-chloro-2-methylphenyl)sulfonyl]amino]methyl]bicyclo[2.2.2]oct-2-yl]-5Z-hexenoic acid

SMILES C1C=CC(C)=C(S(N([H])C[C@@H](C2CCC3CC2)[C@H]3/C=C\CCCC(O)=O)(=O)=O)C=C1

Formula C₂₂H₃₀ClNO₄S

M.Wt 439.2

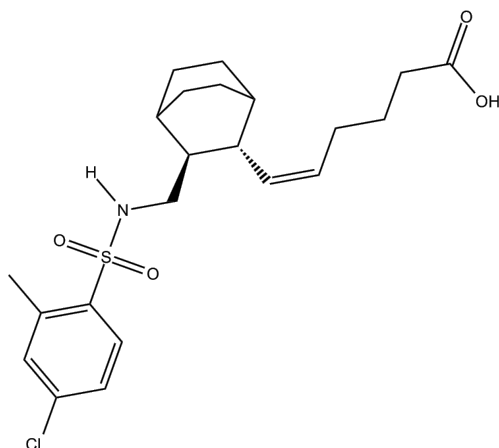
Solubility ≤20mg/ml in ethanol; 20mg/ml in DMSO; 20mg/ml in dimethyl formamide

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C 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



Background

ONO-8711 is a novel and selective EP1 antagonist.

Caution: Product has not been fully validated for medical applications. For research use only.

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Prostaglandin (PG) E₂ functions by acting on a group of G-protein-coupled receptors (GPCRs) EP receptors. The EP receptors exhibit differences in signal transduction, tissue localization, and regulation of expression. The EP receptors have been implicated in various physiological and pathophysiological functions [2].

In vitro: In human pulmonary vessels, ONO-8711 (30 μ M) non-competitively blocked the contractions produced with sulprostone, an EP_{1,3} agonist [3].

In vivo: In azoxymethane-treated C57BL/6J mice, administration of 250, 500, or 1000 ppm of ONO-8711 dose-dependently reduced ACF formation. In Min mice with a nonsense mutation in the adenomatous polyposis coli gene, treatment with 500 ppm ONO-8711 significantly reduced the number of intestinal polyps [1]. In female SD rats given PhIP, administration of ONO-8711 at 400 or 800 p.p.m. delayed occurrence of breast tumors for 2 or 4 weeks, respectively [4]. Treatment with ONO-8711 (800 p.p.m.) significantly decreased PhIP-induced breast cancer incidence, multiplicity and volume when compared with those of control rats [4].

References:

- [1] Watanabe K, Kawamori T, Nakatsugi S, et al. Role of the prostaglandin E receptor subtype EP₁ in colon carcinogenesis[J]. Cancer research, 1999, 59(20): 5093-5096.
- [2] Sugimoto Y, Narumiya S. Prostaglandin E receptors[J]. Journal of Biological Chemistry, 2007, 282(16): 11613-11617.
- [3] Norel X, de Montpreville V, Brink C. 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[J]. Prostaglandins & other lipid mediators, 2004, 74(1): 101-112.
- [4] Kawamori T, Uchiya N, Nakatsugi S, et al. Chemopreventive effects of ONO-8711, a selective prostaglandin E receptor EP₁ antagonist, on breast cancer development[J]. Carcinogenesis, 2001, 22(12).

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