
Product Data Sheet

Product Name: ONO 1301

Cat. No.: GC69625

Chemical Properties

Cas. No. 176391-41-6

Formula $C_{26}H_{24}N_2O_4$ M.Wt 428.48

Solubility DMSO : 50 mg/mL (116.69 mM; Need ultrasonic) 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 1301 (ONO-AP 500-02), a prostaglandin (PG) I₂ mimetic, is an orally active, long-acting **prostacyclin** agonist with thromboxane-synthase inhibitory activity. ONO 1301 promotes production of hepatocyte growth factor (HGF) from various cell types and ameliorates ischemia-induced left ventricle dysfunction in the mouse, rat and pig^{[1][2][3]}.

ONO 1301 (ONO-AP 500-02) inhibits collagen-induced aggregation in a concentration-dependent manner, with an IC₅₀ value of 460 nM^[3].

ONO-1301 (0-1000 nM) significantly increases alkaline phosphatase (ALP) activity in the primary osteoblasts and ST2 cells^[3].

ONO-1301 (6 mg/kg; p.o.; /daily for 4 weeks) improves the hemodynamic status of rats with dilated cardiomyopat after experimental autoimmune myocarditis^[1].

Animal Model: Eight-week-old male Lewis rats (rat model of myosin-induced experimental autoimmune myocarditis)^[1]

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

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Dosage: 6 mg/kg

Administration: Orally; /daily for 4 weeks

Result: Hemodynamic parameters and plasma brain natriuretic peptide (BNP) level were significantly improved.

- [1]. Hirata Y, et al. Beneficial effect of a synthetic prostacyclin agonist, ONO-1301, in rat autoimmune myocarditis model. *Eur J Pharmacol.* 2013;699(1-3):81-87.
- [2]. Kashiwagi H, et al. The novel prostaglandin I₂ mimetic ONO-1301 escapes desensitization in an antiplatelet effect due to its inhibitory action on thromboxane A₂ synthesis in mice. *J Pharmacol Exp Ther.* 2015;353(2):269-278.
- [3]. Kanayama S, et al. ONO-1301 Enhances in vitro Osteoblast Differentiation and in vivo Bone Formation Induced by Bone Morphogenetic Protein. *Spine (Phila Pa 1976).* 2018;43(11):E616-E624.

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