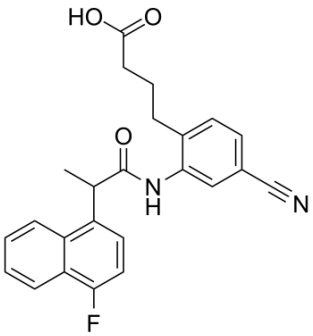
ONO-AE3-208



Cat. No.:	HY-50901
CAS No.:	402473-54-5
Molecular Formula:	$C_{24}H_{21}FN_2O_3$
Molecular Weight:	404.43
Target:	Prostaglandin Receptor
Pathway:	GPCR/G Protein
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 45 mg/mL (111.27 mM)

H_2O : < 0.1 mg/mL (insoluble)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	2.4726 mL	12.3631 mL	24.7262 mL
5 mM	0.4945 mL	2.4726 mL	4.9452 mL
10 mM	0.2473 mL	1.2363 mL	2.4726 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (5.14 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.08 mg/mL (5.14 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.14 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	ONO-AE3-208 is an EP4 antagonist, and suppresses cell invasion, migration, and metastasis of prostate cancer.
IC_{50} & Target	EP4
In Vitro	ONO-AE3-208 surpresses the in vitro cell invasion and migration in a dose-dependent manner without affecting cell

	proliferation[1]. ONO-AE3-208 abolisheS CTGF in the presence of the EET synthesis inhibitor MS-PPOH. Arachidonic acid (AA) causeS dose-dependent dilation of the attached Af-Art, and this effect is blocked by ONO-AE3-208[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	ONO-AE3-208 surpresses the in vivo bone metastasis of PC3 cells in mice[1]. The photon tumor burdens are significantly increased in a time-dependent manner in the control group in comparison with those in the ONO-AE3-208-treated group. The rate of metastasis formation is significantly higher in the former than in the latter. The median time of metastasis formation is 29 d in the ONO-AE3-208-treated animals as compared with 21 d in the controls[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cancer Res. 2018 Oct 1;78(19):5586-5599.
- Hypertension. 2014 Aug;64(2):369-77.
- Clin Sci (Lond). 2020 Feb 14;134(3):331-347.
- Cell Immunol. 2019 Dec.
- Sci Rep. 2017 Jun 13;7(1):3442.

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REFERENCES

[1]. Xu S, et al. An EP4 Antagonist ONO-AE3-208 Suppresses Cell Invasion, Migration, and Metastasis of Prostate Cancer. Cell Biochem Biophys. 2014 Apr 18.

[2]. Ren Y, et al. Prostaglandin E2 mediates connecting tubule glomerular feedback. Hypertension. 2013 Dec;62(6):1123-8.

[3]. Xu S, et al. Inhibitory effect of ONO-AE3-208 on the formation of bone metastasis of prostate cancer in mice. Zhonghua Nan Ke Xue. 2014 Aug;20(8):684-9.

[4]. Thieme K, et al. EP4 inhibition attenuates the development of diabetic and non-diabetic experimental kidney disease. Sci Rep. 2017 Jun 13;7(1):3442.

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