

Produktinformation



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Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Proteins

Product Data Sheet

AM211

Cat. No.: HY-13213

CAS No.: 1175526-27-8 Molecular Formula: $C_{27}H_{27}F_3N_2O_4$

Molecular Weight: 500.51

Target: Prostaglandin Receptor

Pathway: GPCR/G Protein

Powder Storage: -20°C 3 years

2 years

In solvent -80°C 2 years

> -20°C 1 year

SOLVENT & SOLUBILITY

In Vitro DMSO: ≥ 125 mg/mL (249.75 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.9980 mL	9.9898 mL	19.9796 mL
	5 mM	0.3996 mL	1.9980 mL	3.9959 mL
	10 mM	0.1998 mL	0.9990 mL	1.9980 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 (4.16 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.08 mg/mL (4.16 mM); Suspended solution; Need ultrasonic and warming
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (4.16 mM); Clear solution

BIOLOGICAL ACTIVITY

Description AM211 is a potent, selective and orally bioavailable prostaglandin D2 (PGD2) receptor type 2 (DP2) antagonist, with IC50s of 4.9 nM, 7.8 nM, 4.9 nM, 10.4 nM for human, mouse, guinea pig, and rat DP2, respectively.

IC50: 4.9 nM (Human DP2), 7.8 nM (Mouse DP2), 4.9 nM (Guinea pig DP2), 10.4 nM (Rat DP2)^[1] IC₅₀ & Target

In Vitro AM211 is a potent, selective and orally bioavailable prostaglandin D2 (PGD2) receptor type 2 (DP2) antagonist, with IC₅₀s of 4.9 nM, 7.8 nM, 4.9 nM, 10.4 nM for human, mouse, guinea pig, and rat DP2, respectively. In the presence of 0.2% serum albumin, AM211 inhibits radiolabeled PGD2 binding to human, mouse, guinea pig, and rat DP2 with IC $_{50}$ values of 12.2, 20.1, 22.9, and 34.2 nM, respectively. AM211 displays high selectivity for DP2 versus other receptors in the prostanoid family, with IC $_{50}$ values for the inhibition of radioligand binding to human TP, IP, DP1, and FP of more than 100 μ M. AM211 (100 μ M) shows no activity at COX-1, COX-2 enzymes as well as PPAR family of nuclear receptors [1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

AM211 (1, 10, and 30 mg/kg, p.o.) dose-dependently decreases in the number of DK-PGD2-induced peripheral blood leukocytes, with a calculated ED $_{50}$ of 0.85 mg/kg. AM211 (30 mg/kg) also decreases antigen-induced pulmonary inflammation in guinea pigs. AM211 (10 mg/kg, p.o.) causes significant decrease in ovalbumin (OVA)-induced sneezing in a mouse model of allergic rhinitis^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Animal Administration [1]

 $\mathsf{Mice}^{[1]}$

In brief, mice are immunized by an intraperitoneal injection of $10~\mu g$ of ovalbumin (OVA) complexed with Imject Alum in a volume of 0.2~mL on days 1~and~8. Seven days later (day 15) mice are challenged intranasally with $20~\mu L$ of a 10~mg/mL solution of OVA. The challenge period occurs daily from days 15~to~19. Mice (seven/group) are randomLy assigned to receive either compound (AM211, 10~mg/kg) or vehicle (methyl cellulose, 10~mL/kg) and treated by oral gavage 1~h before each OVA challenge. The number of sneezes are counted for 8~min immediately after the OVA challenge on days 15~to~19~t

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Bain G, et al. Pharmacology of AM211, a potent and selective prostaglandin D2 receptor type 2 antagonist that is active in animal models of allergic inflammation. J Pharmacol Exp Ther. 2011 Jul;338(1):290-301.

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

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