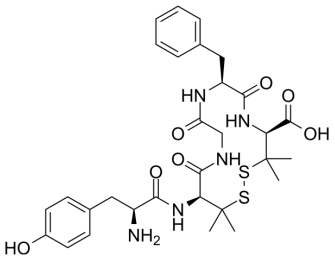
DPDPE

Cat. No.:	HY-P1334
CAS No.:	88373-73-3
Molecular Formula:	$C_{30}H_{39}N_5O_7S_2$
Molecular Weight:	645.79
Sequence:	Tyr-{Pen}-Gly-Phe-{Pen} (Disulfide bridge:Pen2-Pen5)
Sequence Shortening:	Y{Pen}GF{Pen} (Disulfide bridge:Pen2-Pen5)
Target:	Opioid Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Sealed storage, away from moisture Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 10 mg/mL (15.48 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.5485 mL	7.7425 mL	15.4849 mL
5 mM	0.3097 mL	1.5485 mL	3.0970 mL
10 mM	0.1548 mL	0.7742 mL	1.5485 mL

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

BIOLOGICAL ACTIVITY

Description

DPDPE, an opioid peptide, is a selective δ-opioid receptor (DOR) agonist with anticonvulsant effects[1].

IC_{50} & Target

δ Opioid Receptor/DOR

In Vivo

DPDPE (70 or 140 nM; i.c.v.; once) shows anticonvulsant effects in rats[1].

DPDPE (0.78–25 μg/mouse; i.c.v.; once) enhances bicuculline-induced convulsions in mouse[2].

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

Animal Model:	Male Sprague-Dawley rats (225-275 g)[1]
Dosage:	70 or 140 nM followed by a 2 μl saline flush

Administration:	Intracerebroventricular injection
Result:	Resulted in a significant, dose-dependent increase in the convulsive threshold to flurothyl.

Animal Model:	Male ddY mice weighing 20–30 g, pretreated with 1.5 mg/kg bicuculline (subcutaneous injection)[2].
Dosage:	0.78–25 μg/mouse, once
Administration:	Intracerebroventricular injection
Result:	Caused a dose-dependent increase in the proportion of mice exhibiting convulsions.

REFERENCES

[1]. Yajima Y, et al. Effects of differential modulation of mu-, delta- and kappa-opioid systems on bicuculline-induced convulsions in the mouse. Brain Res. 2000 Apr 17;862(1-2):120-6.

[2]. F C Tortella, et al. Anticonvulsant Effects of Mu (DAGO) and Delta (DPDPE) Enkephalins in Rats. Peptides

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