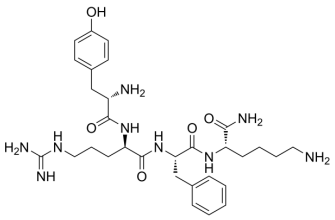
DALDA

Cat. No.:	HY-P3870
CAS No.:	118476-85-0
Molecular Formula:	$C_{30}H_{45}N_9O_5$
Molecular Weight:	611.74
Sequence Shortening:	Y-{D-Arg}-FK-NH2
Target:	Opioid Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	DALDA is a potent and highly selective μ-opioid receptor agonist with a K_i of 1.69 nM. DALDA shows antinociceptive and respiratory effects[1].

IC_{50} & Target	μ Opioid Receptor/MOR	κ Opioid Receptor/KOR	δ Opioid Receptor/DOR
	1.69 nM (Ki)	4230 nM (Ki)	19200 nM (Ki)

In Vitro

DALDA carrys a net positive charge (3+) at physiological pH and is thus hydrophilic and more polar than morphine[1].

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

In Vivo

DALDA (0-7 nmol/rat; i.t.; once) shows antinociceptive and respiratory effects in rats[1].

DALDA (0.1 and 1.0 μg/side; ICV; once) results in biphasic effects, with an initial suppression, an intermediate marked inhibition, followed by activation for horizontal movement, rearing and stereotypy times in rats[2].

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

Animal Model:	Male Sprague-Dawley rats (300–350 g)[1]
Dosage:	0.24, 0.7 and 7 nmol/rat
Administration:	Intrathecal injection, once
Result:	Showed antinociceptive effects with an ED_{50} of 237 pmol/rat in the rat tail-flick test. Inhibited the uptake of NE in spinal cord synaptosomes in a dose-dependent manner. Had no effect on 5-HT uptake. Produced depression in minute ventilation.

Animal Model:	Male Long-Evans rats, weighing 200-225 g[2]
Dosage:	0, 0.1 and 1.0 μg/side, 0.5 μL
Administration:	Lateral cerebral ventricle injection, once
Result:	Elicited a significant biphasic effect with an initial suppression, an intermediate marked inhibition, followed by significant activation for horizontal movement time, rearing time,

	and stereotypy time.

REFERENCES

[1]. Shimoyama M, et al. Antinociceptive and respiratory effects of intrathecal H-Tyr-D-Arg-Phe-Lys-NH2 (DALDA) and [Dmt1] DALDA. Journal of Pharmacology and Experimental Therapeutics, 2001, 297(1): 364-371.

[2]. Meyer ME, et al. DALDA (H-Tyr-D-Arg-Phe-Lys-NH2), a potent mu-opioid peptide agonist, affects various patterns of locomotor activities. Pharmacol Biochem Behav. 1995 May;51(1):149-51.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA