[DPro10] Dynorphin A (1-11), porcine

Cat. No.:	HY-P3647
CAS No.:	94596-26-6
Molecular Formula:	$C_{63}H_{103}N_{21}O_{13}$
Molecular Weight:	1362.62
Sequence:	Tyr-Gly-Gly-Phe-Leu-Arg-Arg-Ile-Arg-{d-Pro}-Lys
Sequence Shortening:	YGGFLRRIR-{d-Pro}-K
Target:	Opioid Receptor; Adenylate Cyclase
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	[DPro10] Dynorphin A (1-11), porcine, a N-Alkylated derivative, is a potent κ-opioid receptor agonist with a K_i value of 0.13 nM. [DPro10] Dynorphin A (1-11), porcine has analgesic property[1][2].
In Vitro	[DPro10] Dynorphin A (1-11), porcine has inhibition of adenylyl cyclase activity in k-opioid receptor-expressing CHO cells with an IC_{50} value of 0.12 nM[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	[DPro10] Dynorphin A (1-11), porcine (ICV) has analgesic effects involving thermal cutaneous (tail-flick) and chemical visceral (AcOH-induced writhing) stimuli, in which mu and kappa receptors are known to be activated differentially[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Soderstrom K, et, al. N-alkylated derivatives of [D-Pro10]dynorphin A-(1-11) are high affinity partial agonists at the cloned rat kappa-opioid receptor. Eur J Pharmacol. 1997 Nov 5;338(2):191-7.

[2]. Gairin JE, et, al. [D-Pro10]-dynorphin(1-11) is a kappa-selective opioid analgesic in mice. J Pharmacol Exp Ther. 1988 Jun;245(3):995-1001.

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