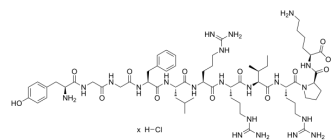


## [DPro10] Dynorphin A (1-11), porcine hydrochloride

<b>Cat. No.:</b>	HY-P3647A
<b>Molecular Formula:</b>	C <sub>63</sub> H <sub>103</sub> N <sub>21</sub> O <sub>13</sub> ·xHCl
<b>Sequence:</b>	Tyr-Gly-Gly-Phe-Leu-Arg-Arg-Ile-Arg-{d-Pro}-Lys
<b>Sequence Shortening:</b>	YGGFLRRIR-{d-Pro}-K
<b>Target:</b>	Opioid Receptor; Adenylate Cyclase
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	[DPro10] Dynorphin A (1-11), porcine hydrochloride, a N-Alkylated derivative, is a potent κ-opioid receptor agonist with a K <sub>i</sub> value of 0.13 nM. [DPro10] Dynorphin A (1-11), porcine hydrochloride has analgesic property <sup>[1][2]</sup> .
<b>In Vitro</b>	[DPro10] Dynorphin A (1-11), porcine has inhibition of adenylyl cyclase activity in κ-opioid receptor-expressing CHO cells with an IC <sub>50</sub> value of 0.12 nM <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	[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 <sup>[2]</sup> . 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.

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

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