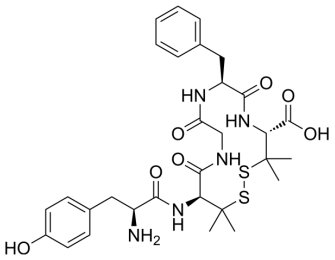
[DPen2, Pen5] Enkephalin

Cat. No.:	HY-P3546
CAS No.:	88373-72-2
Molecular Formula:	$C_{30}H_{39}N_5O_7S_2$
Molecular Weight:	645.79
Sequence Shortening:	Y-{d-Pen}-GF-{Pen} (Disulfide bridge: d-Pen2-Pen5)
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	[DPen2, Pen5] Enkephalin is a δ-opioid receptor selective analog of [Leu5]-Enkephalin (HY-P0288)[1].
IC_{50} & Target	δ Opioid Receptor/DOR

In Vivo

[DPen2, Pen5] Enkephalin (0-3.32 μg/kg, IP) impairs acquisition of an automated jump-up avoidance response in rats and acquisition of a one-way active avoidance response in mice[1].

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

Animal Model:	Male Sprague-Dawley rats (260-280 g)[1]
Dosage:	0, 1.16, 11.6 μg/kg
Administration:	IP, administered on day 2 prior to presentation of eight training trials, on subsequent one-way avoidance responding.
Result:	Produced a significant impairment of avoidance performance at 1.16 ug/kg, while the 11.6 ug/kg dose was without significant effect.

Animal Model:	Male Sprague-Dawley rats (260-280 g)[1]
Dosage:	0, 0.332, 3.32 μg/kg
Administration:	IP, administered on day 1 immediately after presentation of two escape-only trials, on subsequent day 2 one-way avoidance responding in the second experiment
Result:	Produced a significant enhancement of avoidance performance at 0.332 ug/kg, while the 3.32 ug/kg dose was without significant effect.

REFERENCES

[1]. Martinez JL Jr, et al. D-Pen2-[D-Pen5]enkephalin impairs acquisition and enhances retention of a one-way active avoidance response in rats. Peptides. 1992 Sep-Oct;13(5):885-9.

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