[Met5]-Enkephalin, amide TFA

Cat. No.: HY-P1467A

Molecular Formula: $C_{29}H_{37}F_3N_6O_8S$

Molecular Weight: 686.7

Sequence: Tyr-Gly-Gly-Phe-Met-NH2

Sequence Shortening: YGGFM-NH2

Target: Opioid Receptor

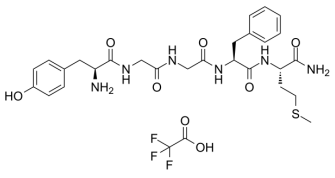
Pathway: GPCR/G Protein; Neuronal Signaling

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 : 100 mg/mL (145.62 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.4562 mL	7.2812 mL	14.5624 mL
	5 mM	0.2912 mL	1.4562 mL	2.9125 mL
	10 mM	0.1456 mL	0.7281 mL	1.4562 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 50 mg/mL (72.81 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

[Met5]-Enkephalin, amide TFA is an agonist for δ opioid receptors as well as putative ζ (zeta) opioid receptors.

IC_{50} & Target

δ and ζ opioid receptor[1]

In Vitro

[Met5]-Enkephalin at 0.1 nM, 10 nM, and 1 μM significantly reduces the total number of glial cells in culture[1]. [Met5]-Enkephalin, amide acts via δ-opioid receptor to inhibit pelvic nerve-evoked contractions of cat distal colon. [Met5]-enkephalin causes concentration-dependent, reversible inhibition of pelvic nerve-evoked contractions, with an IC_{50} value of 2.2 nM. [Met5]enkephalin at a concentration (3 nM) which produces a large inhibition of neurogenic contractions, has no effect on contractions to exogenous acetylcholine[2].

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

REFERENCES

[1]. Stiene-Martin A, et al. Glial growth is regulated by agonists selective for multiple opioid receptor types in vitro. J Neurosci Res. 1991 Aug;29(4):538-48.

[2]. Kennedy C, et al. [Met5]enkephalin acts via delta-opioid receptors to inhibit pelvic nerve-evoked contractions of cat distal colon. Br J Pharmacol. 1987 Oct;92(2):291-8.

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