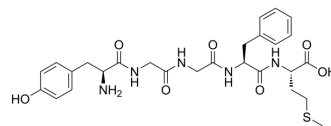


Tyr-Gly-Gly-Phe-Met-OH

Cat. No.:	HY-P0073
CAS No.:	58569-55-4
Molecular Formula:	C ₂₇ H ₃₅ N ₅ O ₇ S
Molecular Weight:	573.66
Sequence:	Tyr-Gly-Gly-Phe-Met
Sequence Shortening:	YGGFM
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

DMSO : ≥ 40 mg/mL (69.73 mM)
 H₂O : 6.67 mg/mL (11.63 mM; Need ultrasonic)
 * "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.7432 mL	8.7160 mL	17.4319 mL
	5 mM	0.3486 mL	1.7432 mL	3.4864 mL
	10 mM	0.1743 mL	0.8716 mL	1.7432 mL

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

BIOLOGICAL ACTIVITY

Description	Tyr-Gly-Gly-Phe-Met-OH regulates human immune function and inhibits tumor growth via binding to the opioid receptor.
IC ₅₀ & Target	Opioid Receptor ^[1] .
In Vitro	Methionine enkephalin (MENK), an endogenous neuropeptide has a crucial role in both neuroendocrine and immune systems. MENK is believed to have an immunoregulatory activity to have cancer biotherapy activity by binding to the opioid receptors on immune and cancer cells. MENK may also change the tumor microenvironment by binding to opioid receptor on or in cancer cells. All of these mechanisms of action have biologic significance and potential for use in cancer immunotherapy. Furthermore, they reveal a relationship between the endocrine and immune systems ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Leukoc Biol. 2020 Jul;108(1):215-228.

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REFERENCES

- [1]. Zhao D, et al. Methionine enkephalin, its role in immunoregulation and cancer therapy. Int Immunopharmacol. 2016 Feb 23. pii: S1567-5769(16)30050-9.
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Caution: Product has not been fully validated for medical applications. For research use only.

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