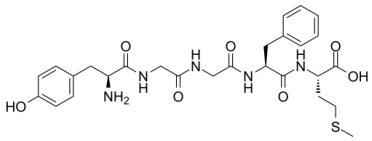
Data Sheet

Product Name:	Tyr-Gly-Gly-Phe-Met-OH
Cat. No.:	CS-5426
CAS No.:	58569-55-4
Molecular Formula:	C27H35N5O7S
Molecular Weight:	573.66
Target:	Opioid Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Solubility:	DMSO : ≥ 40 mg/mL (69.73 mM); H2O : 6.67 mg/mL (11.63 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

Tyr-Gly-Gly-Phe-Met-OH regulates human immune function and inhibits tumor growth via binding to the **opioid receptor**. IC50 & 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].

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.

CAIndexNames:

L-Methionine, L-tyrosylglycylglycyl-L-phenylalanyl-

SMILES:

CSCC[C@@H](C(O)=O)NC([C@H](CC1=CC=CC=C1)NC(CNC(CNC([C@H](CC2=CC=C(C=C2)O)N)=O)=O)=O)=O

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

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA