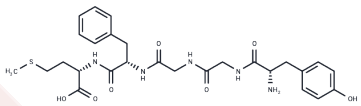
Data Sheet (Cat.No.T7211)

TargetMol

Tyr-Gly-Gly-Phe-Met-OH

Chemical Properties



CAS No. : 58569-55-4

Formula: C27H35N5O7S

Molecular Weight: 573.66

Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Tyr-Gly-Gly-Phe-Met-OH (Met-Enkephalin) is a naturally occurring endogenous opioid peptide that inhibits tumor growth by binding to the opioid receptor.
Targets(IC50)	Opioid Receptor
In vitro	Tyr-Gly-Gly-Phe-Met-OH,as know as 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.?Clinical trial studies in cancer patients have shown that MENK activates immune cells directly and by inhibiting regulatory T-cells (Tregs).?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.

Solubility Information

Solubility	DMSO: 81.67 mg/mL (142.37 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7432 mL	8.716 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
50 mM	0.0349 mL	0.1743 mL	0.3486 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Zhao D , Plotnikoff N , Griffin N , et al. Methionine enkephalin, its role in immunoregulation and cancer therapy[J]. International Immunopharmacology, 2016:S1567576916300509.