Proteins

Uridine 5'-monophosphate

Cat. No.: HY-101981 CAS No.: 58-97-9 Molecular Formula: $C_{9}H_{13}N_{2}O_{9}P$

Molecular Weight: 324.18

Target: **Endogenous Metabolite** Pathway: Metabolic Enzyme/Protease Powder -20°C Storage: 3 years

> In solvent -80°C 6 months

-20°C 1 month

Product Data Sheet

SOLVENT & SOLUBILITY

In Vitro

DMSO: 150 mg/mL (462.71 mM; Need ultrasonic) H₂O: 150 mg/mL (462.71 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	3.0847 mL	15.4235 mL	30.8471 mL
	5 mM	0.6169 mL	3.0847 mL	6.1694 mL
	10 mM	0.3085 mL	1.5424 mL	3.0847 mL

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

In Vivo

- 1. Add each solvent one by one: PBS
 - Solubility: 100 mg/mL (308.47 mM); Clear solution; Need ultrasonic
- 2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 3.75 mg/mL (11.57 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 3.75 mg/mL (11.57 mM); Clear solution
- 4. Add each solvent one by one: 10% DMSO >> 90% corn oil

Solubility: ≥ 3.75 mg/mL (11.57 mM); Clear solution

BIOLOGICAL ACTIVITY

Metabolite

Description Uridine 5'-monophosphate (5'-Uridylic acid), a monophosphate form of UTP, can be acquired either from a de novo pathway or degradation products of nucleotides and nucleic acids in vivo and is a major nucleotide analogue in mammalian milk^[1].

IC₅₀ & Target **Human Endogenous** Microbial Metabolite

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REFERENCES
[1]. Li G, et al. Uridine/UMP metabolism and their function on the gut in segregated early weaned piglets. Food Funct. 2019 Jul 17;10(7):4081-4089.
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Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA

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