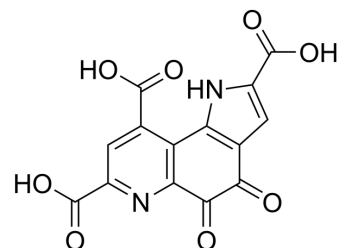


Pyrroloquinoline quinone

Cat. No.:	HY-100196		
CAS No.:	72909-34-3		
Molecular Formula:	C ₁₄ H ₆ N ₂ O ₈		
Molecular Weight:	330.21		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : 1 mg/mL (3.03 mM); ultrasonic and warming and heat to 60°C
 DMSO : < 1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble or slightly soluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.0284 mL	15.1419 mL	30.2838 mL
	5 mM	---	---	---
	10 mM	---	---	---

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

In Vivo

- Add each solvent one by one: 0.5% CMC/saline water
Solubility: 4 mg/mL (12.11 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: PBS
Solubility: 1 mg/mL (3.03 mM); Clear solution; Need ultrasonic and warming and heat to 60°C

BIOLOGICAL ACTIVITY

Description

Pyrroloquinoline quinone (PQQ), a redox co-factor, is an anionic, redox-cycling orthoquinone. Pyrroloquinoline quinone is isolated from cultures of methylotropic bacteria and tissues of mammals. Pyrroloquinoline quinone is an essential nutrient for mammals and is important for immune function^{[1][2]}.

IC₅₀ & Target

Microbial Metabolite Human Endogenous Metabolite

In Vitro

Mouse pups born to and nursing from Pyrroloquinoline quinone (PQQ)-deprived dams have a compromised immune response as well as alopecia, a hunched posture, and a susceptibility to aortic aneurysms^[2].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Biosens Bioelectron. 2024 Jan 18, 116049.
- Antioxidants (Basel). 2024 Jan 15, 13(1), 104.
- J Agric Food Chem. 2024 Sep 11.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Moog RS, et al. Evidence for methoxatin (pyrroloquinolinequinone) as the cofactor in bovine plasma amine oxidase from resonance Raman spectroscopy. Proc Natl Acad Sci U S A. 1986 Nov;83(22):8435-9.
- [2]. Bishop A, et al. Methoxatin (PQQ) in guinea-pig neutrophils. Free Radic Biol Med. 1994 Oct;17(4):311-20.
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Caution: Product has not been fully validated for medical applications. For research use only.

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