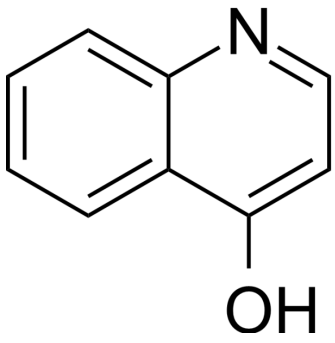
4-Quinolinol



Cat. No.:	HY-59208
CAS No.:	611-36-9
Molecular Formula:	C_9H_7NO
Molecular Weight:	145.16
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

DMSO : 100 mg/mL (688.89 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	6.8889 mL	34.4447 mL	68.8895 mL
	5 mM	1.3778 mL	6.8889 mL	13.7779 mL
	10 mM	0.6889 mL	3.4445 mL	6.8889 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (17.22 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (17.22 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (17.22 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

4-Quinolone (Kynurine) is a quinoline derivative. Kynurine pathway modulates tryptophan metabolism and involves in neuroprotective effect. Kynurine promotes tumor cell survival and motility by suppressing antitumor immune[1][2].

In Vitro

4-Quinolone (Kynurine) promotes tumor cell survival and motility by suppressing antitumor immune responses through AhR in an autocrine/paracrine fashion. This system is particularly active in human brain tumors where the activation of AhR enhances the expression of TDO producing more kynurine and kynurinic acid. In the healthy human brain, very low levels of TDO exist, whereas, in human brain tumors, the TDO protein levels increase with malignancy[3].

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Pellicciari R, et al. Modulation of the kynurine pathway of tryptophan metabolism in search for neuroprotective agents. Focus on kynurenine-3-hydroxylase. Adv Exp Med Biol. 2003;527:621-8.

[2]. Marija Pinne, et al. Cytochrome P450 Gene Regulation: Reporter Assays to Assess Aryl Hydrocarbon Receptor (HLHE76, AhR) Activation and Antagonism. Cytochrome P450. pp 157-174.

[3]. Opitz CA, et al. An endogenous tumour-promoting ligand of the human aryl hydrocarbon receptor. Nature. 2011 Oct 5;478(7368):197-203.

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