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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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D-Kynurenine

Cat. No.: HY-W014502

CAS No.: 13441-51-5

Molecular Formula: $C_{10}H_{12}N_2O_3$

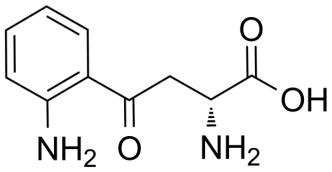
Molecular Weight: 208.21

Target: Aryl Hydrocarbon Receptor; Endogenous Metabolite

Pathway: Immunology/Inflammation; 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

H_2O : 5 mg/mL (24.01 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.8028 mL	24.0142 mL	48.0284 mL
	5 mM	0.9606 mL	4.8028 mL	9.6057 mL
	10 mM	0.4803 mL	2.4014 mL	4.8028 mL

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

BIOLOGICAL ACTIVITY

Description

D-kynurenine, a metabolite of D-tryptophan, can serve as the bioprecursor of kynurenic acid (KYNA) and 3-hydroxykynurenine. D-Kynurenine is an agonist for G protein-coupled receptor, GPR109B. D-Kynurenine is a substrate in a fluorometric assay of D-amino acid oxidase. D-kynurenine promotes epithelial-to-mesenchymal transition via activating aryl hydrocarbon receptor (AHR)[1][2][3][4].

IC_{50} & Target

Human Endogenous Metabolite

In Vitro

D-kynurenine (10, 40, 60, and 100 μM) positively regulates the metastasis of 95D cells, a lung cancer cell line, which is reduced upon siRNAAhr treatment. Significant enhancement VIM expression was detected in the presence of D-kynurenine (10 and 40 μM). 10 μM D-kynurenine markedly attenuates E-cadherin level. 10 μM D-kynurenine-mediated changes of VIM and E-cadherin are substantially attenuated on siRNAAhr treatment as well. The evidences-10/40 μM D-kynurenine-induced up-regulation of CYP1A1, 10 μM D-kynurenine-induced increase of nuclear transfer of Ahr, and 10/40/60/100 μM D-kynurenine-induced enhancement of DER-luciferase activity-indicated that D-kynurenine Is capable of activating Ahr in fact [4].

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

REFERENCES

[1]. Wang XD, et al. A method for the determination of D-kynurenine in biological tissues. Anal Bioanal Chem. 2013 Dec;405(30):9747-54.

[2]. Irukayama-Tomobe Y, et al. Aromatic D-amino acids act as chemoattractant factors for human leukocytes through a G protein-coupled receptor, GPR109B. Proc Natl Acad Sci U S A. 2009 Mar 10;106(10):3930-4.

[3]. Kozaki A, et al. Fluorimetric assay for D-amino acid oxidase activity in rat brain homogenate by using D-kynurenine as a substrate. Biosci Trends. 2012 Oct;6(5):241-7.

[4]. Duan Z, et al. Promoting epithelial-to-mesenchymal transition by D-kynurenine via activating aryl hydrocarbon receptor. Mol Cell Biochem. 2018 Nov;448(1-2):165-173.

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