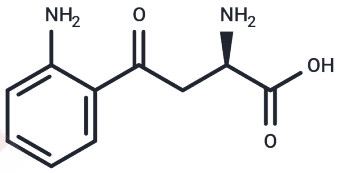
Data Sheet (Cat.No.T10938)

TargetMol

D-Kynurenine

Chemical Properties



CAS No. : 13441-51-5

Formula: C10H12N2O3

Molecular Weight: 208.21

Storage: 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	D-Kynurenine (ZINC901103) is a metabolite of D-tryptophan and an agonist of GPR109B. D-Kynurenine activates AhR and promotes the conversion of the epithelium to mesenchyme. D-Kynurenine serves as a substrate in the fluorescence analysis of D-amino acid oxidase.
Targets(IC50)	AhR,Aryl Hydrocarbon Receptor,Endogenous Metabolite,GPCR
In vitro	D-Kynurenine (10-100 μM) induces DER-enhancement and positively regulates the transfer of 95D cells, which is attenuated after siRNAAhr treatment in VIM and E-cadherin. D-Kynurenine (10 and 40 μM) significantly increases VIM expression and induces CYP1A1 upregulation. D-Kynurenine (10 μM) significantly attenuates the level of E-cadherin[4].

Solubility Information

Solubility	H2O: 5 mg/mL (24.01 mM),Sonication and heating to 60°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.0961 mL	0.4803 mL	0.9606 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

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