D-Tyrosine

Cat. No.: HY-Y0444

CAS No.: 556-02-5

Molecular Formula: $C_9H_{11}NO_3$

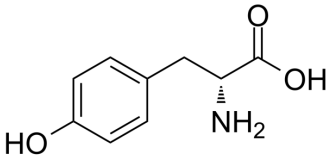
Molecular Weight: 181.19

Target: Tyrosinase

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

1M HCl : 25 mg/mL (137.98 mM; ultrasonic and warming and heat to 60°C)

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

H_2O : < 0.1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	5.5191 mL	27.5953 mL	55.1907 mL
5 mM	1.1038 mL	5.5191 mL	11.0381 mL
10 mM	0.5519 mL	2.7595 mL	5.5191 mL

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

BIOLOGICAL ACTIVITY

Description

D-Tyrosine is the D-isomer of tyrosine. D-Tyrosine negatively regulates melanin synthesis by inhibiting tyrosinase activity. D-Tyrosine inhibits biofilm formation and trigger the self-dispersal of biofilms without suppressing bacterial growth[1][2].

IC_{50} & Target

Tyrosinase[1]

REFERENCES

[1]. Jisu Park, et al. D-tyrosine Negatively Regulates Melanin Synthesis by Competitively Inhibiting Tyrosinase Activity. Pigment Cell Melanoma Res. 2018 May;31(3):374-383.

[2]. Cong Yu, et al. Inhibition of Biofilm Formation by D-tyrosine: Effect of Bacterial Type and D-tyrosine Concentration. Water Res. 2016 Apr 1;92:173-9.

Caution: Product has not been fully validated for medical applications. For research use only.

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