

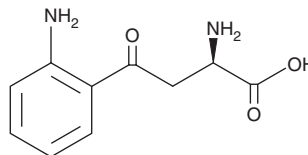
PRODUCT INFORMATION



D-Kynurenine

Item No. 28254

CAS Registry No.: 13441-51-5
Formal Name: αR,2-diamino-γ-oxo-benzenebutanoic acid
MF: C₁₀H₁₂N₂O₃
FW: 208.2
Purity: ≥98%
UV/Vis.: λ_{max}: 228, 257, 370 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

D-Kynurenine is supplied as a crystalline solid. A stock solution may be made by dissolving the D-kynurenine in the solvent of choice, which should be purged with an inert gas. D-Kynurenine is soluble in the organic solvent 0.5M HCl at a concentration of approximately 50 mg/ml.

Description

D-Kynurenine is an antagonist of hydroxycarboxylic acid receptor 3 HCA₃/GPR109B (EC₅₀ = 2.61 μM in a luciferase reporter assay) and a metabolite of D-tryptophan.¹ It increases levels of intracellular calcium and decreases forskolin-stimulated production of cAMP in CHO cells expressing human HCA₃/GPR109B when used at concentrations of 10 and 100, or 1,000 μM, respectively. D-Kynurenine (10 μM) increases expression of vimentin and decreases expression of E-cadherin in 95D lung cancer cells.² It has been used as a substrate in fluorometric assays for D-amino acid oxidase activity.^{3,4}

References

1. Irukayama-Tomobe, Y., Tanaka, H., Yokomizo, T., *et al.* Aromatic D-amino acids act as chemoattractant factors for human leukocytes through a G protein-coupled receptor, GPR109B. *Proc. Natl. Acad. Sci. USA* **106**(10), 3930-3934 (2009).
2. Duan, Z., Li, Y., and Li, L. Promoting epithelial-to-mesenchymal transition by D-kynurenine via activating aryl hydrocarbon receptor. *Mol. Cell. Biochem.* **448**(1-2), 165-173 (2018).
3. Kozaki, A., Iwasa, S., Hosoda, S., *et al.* Fluorimetric assay for D-amino acid oxidase activity in rat brain homogenate by using D-kynurenine as a substrate. *Biosci. Trends* **6**(5), 241-247 (2012).
4. Song, Z., Ogaya, T., Ishii, K., *et al.* Utilization of kynurenic acid produced from D-kynurenine in an *in vitro* assay of D-amino acid oxidase activity. *J. Health Sci.* **56**(3), 341-346 (2010).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/21/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM