

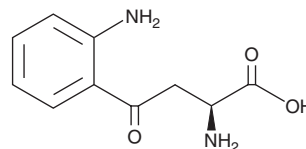
PRODUCT INFORMATION



L-Kynurenine

Item No. 11305

CAS Registry No.: 2922-83-0
Formal Name: αS,2-diamino-γ-oxo-benzenebutanoic acid
Synonyms: 3-anthraniloyl-Alanine, L-KYN
MF: C₁₀H₁₂N₂O₃
FW: 208.2
Purity: ≥98%
UV/Vis.: λ_{max}: 229, 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.

Description

L-Kynurenine is an active metabolite of tryptophan (Item Nos. 29600 | 31210).¹ It is formed from tryptophan via tryptophan 2,3-dioxygenase (TDO) or indoleamine 2,3-dioxygenase (IDO). L-Kynurenine binds to the aryl hydrocarbon receptor (AhR; K_d = ~4 μM) and increases the activity of ethoxyresorufin-O-deethylase (EROD) in H-4-II-E rat hepatoma cells (EC₅₀ = 12.3 μM).² It decreases intracellular concentrations of NAD⁺ (Item No. 16077) in, and increases lactate dehydrogenase (LDH) activity in the supernatant of, primary human astrocytes and neurons in a concentration-dependent manner.³ L-Kynurenine in combination with IFN-γ reduces lung injury induced by *A. fumigatus* infection in the p47^{phox}^{-/-} mouse model of chronic granulomatous disease.⁴

References

1. Stone, T.W., Forrest, C.M., and Darlington, L.G. Kynurenine pathway inhibition as a therapeutic strategy for neuroprotection. *FEBS J.* **279**(8), 1386-1397 (2012).
2. Opitz, C.A., Litzenger, U.M., Sahm, F., et al. An endogenous tumour-promoting ligand of the human aryl hydrocarbon receptor. *Nature* **478**(7368), 197-203 (2011).
3. Braidy, N., Grant, R., Brew, B.J., et al. Effects of kynurenine pathway metabolites on intracellular NAD⁺ synthesis and cell death in human primary astrocytes and neurons. *Int. J. Tryptophan Res.* **2**, 61-69 (2009).
4. Romani, L., Fallarino, F., De Luca, A., et al. Defective tryptophan catabolism underlies inflammation in mouse chronic granulomatous disease. *Nature* **451**(7175), 211-215 (2008).

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.

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