

L-Kynurenine

Catalog No: tcsc0022016



Available Sizes

Size: 50mg



Specifications

CAS No:

2922-83-0

Formula:

$C_{10}H_{12}N_2O_3$

Pathway:

Immunology/Inflammation;Metabolic Enzyme/Protease

Target:

Aryl Hydrocarbon Receptor;Endogenous Metabolite

Purity / Grade:

>98%

Solubility:

DMSO : 50 mg/mL (240.14 mM; Need ultrasonic)

Observed Molecular Weight:

208.21

Product Description

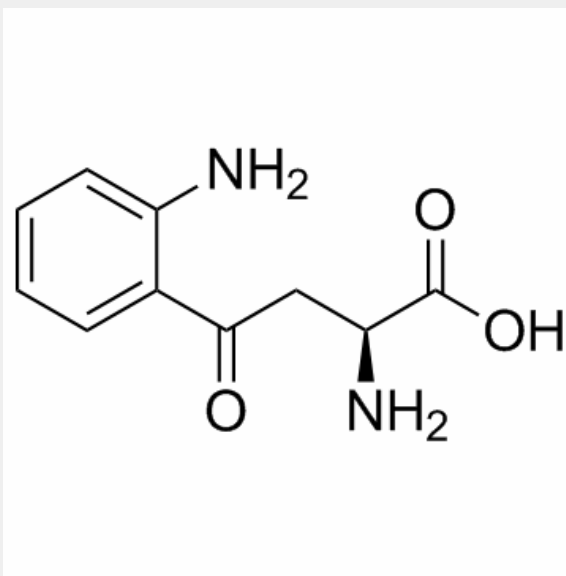
L-Kynurenine is a metabolite of the amino acid L-tryptophan. L-Kynurenine is an **aryl hydrocarbon receptor** agonist.

IC50 & Target: Target: Aryl Hydrocarbon Receptor^[1]

In Vitro: Kynurenine and its further breakdown products carry out diverse biological functions, including dilating blood vessels during inflammation and regulating the immune response. Some cancers increase kynurenine production, which increases tumor growth. L-kynurenine (Kyn) is an aryl hydrocarbon receptor (AHR) agonist that activates AHR-directed, naive T cell polarization to the anti-inflammatory Treg phenotype. Kynurenine activates AHR signaling at physiological concentrations in H1L7.5c3 cells and acts as

an AHR agonist after a 24-hr exposure by inducing the AHR-regulated luciferase gene in H1L7.5c3 mouse hepatocyte cells^[1].

In Vivo: Kynurenine dilates arteries from rats as well as humans via Kv7 channels in the vascular smooth muscle. In rats, this tryptophan metabolite causes hypotension, which is partly counteracted by Kv7 channel inhibition^[2]. L-kynurenine administered 1 h before the hypoxia-ischemia shows a dose-dependent significant neuroprotective effect, with complete protection at a dose of 300 mg/kg. The induction of c-fos immunoreactivity in cerebral cortex is also blocked by this dose of L-kynurenine^[3].



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