Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Ellagic acid

Catalog No: tcsc2067

Available Sizes

Size: 1g

Size: 5g

Specifications

CAS No:
476-66-4

Formula:
$C_{14}H_6O_8$

Pathway:
Stem Cell/Wnt;Cell Cycle/DNA Damage

Target:
Casein Kinase;Casein Kinase

Purity / Grade:
>98%

Solubility:
DMSO : 0.75 mg/mL (2.48 mM; Need ultrasonic)

Observed Molecular Weight:
302.19

Product Description

Ellagic acid is a natural antioxidant, and acts as a potent and ATP-competitive **CK2** inhibitor, with an $\mathbf{IC_{50}}$ of 40 nM and a $\mathbf{K_i}$ of 20 nM.

IC50 & Target: IC50: 40 nM (CK2)[1]

Ki: 20 (CK2)[1]

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In Vitro: Ellagic acid is a potent CK2 inhibitor, with an IC_{50} of 40 nM and a K_i of 20 nM. Ellagic acid also blocks other kinases such as LYN, PKA, SYK, GSK3, FGR and CK1, with IC_{50}s of 2.9, 3.5, 4.3, 7.5, 9.4 and 13.0 μM, respectively, and shows no obvious effects on DYRK1a, CSK, NPM-ALK, RET and FLT3 (IC_{50}s > 40 μM). Ellagic acid (5-100 μM) shows inhibitory activities against Karpas299, SUDHL1, SR786, and FE-PD cell lines[1]. Ellagic acid (10 μM) exhibits cytotoxic effects on MCF-7 cells after treatment of radiation. Ellagic acid (10 μM) in combination with Irradiation (IR) significantly abridges the capacity of MCF-7 cells to form colonies equated with individual treatments. Ellagic acid with IR also induces cell apoptosis, and facilitates the upregulation of pro-apopttotic Bax and downregulation of Bcl-2 in MCF-7 cells[3].

In Vivo: Ellagic acid (EA; 10 mg/kg/day; p.o., 14 days) strongly decreases MDA brain content by 17%, and reduces the levels of brain TNF-α by 42% in rats. Ellagic acid markedly increases the reduced brain contents of 5-HT (39%), dopamine (DA, 71%), and norepinephrine (NE, 77%). Ellagic acid (10 mg/kg, p.o., 14 days) causes decreased histopathological changes induced by Doxorubicin in rats[2].