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

Tacedinaline

Catalog No: tcsc1280

Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg

Size: 500mg

Specifications

CAS No:
112522-64-2

Formula:
$C_{15}H_{15}N_3O_2$

Pathway:
Epigenetics;Cell Cycle/DNA Damage

Target:
HDAC;HDAC

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 58 mg/mL (215.37 mM)

Alternative Names:
N-acetyldinaline;CI-994;Goe-5549

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Observed Molecular Weight:
269.3

Product Description

CI-994 (Tacedinaline) is an inhibitor of the histone deacetylase (**HDAC**) with **IC_{50}**s of 0.9, 0.9, 1.2 μM for recombinant HDAC 1, 2 and 3 respectively.

IC50 & Target: IC50: 0.9 μM (HDAC 1), 0.9 μM (HDAC 2), 1.2 μM (HDAC 3)[1]

In Vitro: CI-994 (N-acetyldinaline) is a novel oral compound with a wide spectrum of antitumor activity in preclinical models. The mechanism of action may involve inhibition of histone deacetylation and cell cycle arrest. CI-994 is combined with antineoplastic agents commonly used in non-small cell lung cancer cell line management, a marked synergism of action (R=1.8, R=1.5) is observed between CI-994 (40 μM) and gemcitabine (0.01 μM) at 48 and 72 h of treatment[2].CI-994 inhibits mitogen-stimulated blood lymphocyte proliferation with an IC_{50} value of 3 μM[4].

In Vivo: CI-994 has activity against 8/8 solid tumors tested: pancreatic ductal adenocarcinoma #02 (4.7); pancreatic adenocarcinoma #03 (3.0; 1/6 cures); colon adenocarcinoma #38 (1.6); colon adenocarcinoma #51/A (1.1); mammary adenocarcinoma #25 (1.7); mammary adenocarcinoma #17/ADR (0.5); Dunning osteogenic sarcoma (4.0); and the human prostate carcinoma LNCaP (1.2). CI-994 is the acetylated metabolite of dinaline and has the same spectrum of activity *in vivo* as dinaline. It also behaves similarly in schedule comparison/toxicity trials[3]. CI-994 can effect lymphoid tissue in rats within 1 day of a single oral dose, that effects are generally reversible within 7 days[4].