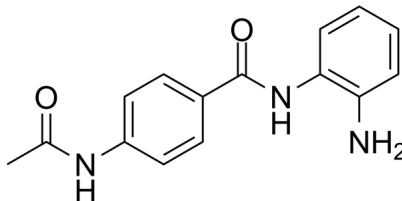


Certificate of Analysis

Catalog Number	BP10151
Product Name	Tacedinaline

Physical and Chemical Properties

Synonyms	CI994, PD-123654, Acetyldinaline, Goe-5549, N-acetyldinaline
CAS No.	112522-64-2
Chemical Formula	C ₁₅ H ₁₅ N ₃ O ₂
Molecular Weight	269.304
Solubility	DMSO: 26.9 mg/mL (100 mM)
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	

Product Information

Description	Tacedinaline (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. Tacedinaline (N-acetyldinaline) 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 Tacedinaline (N-acetyldinaline) (40 μ M) and gemcitabine (0.01 μ M) at 48 and 72 h of treatment. Tacedinaline (N-acetyldinaline) inhibits mitogen-stimulated blood lymphocyte proliferation with an IC50 value of 3 μ M.
Targets&IC50	HDAC1: 0.9 μ M, HDAC3: 1.2 μ M, HDAC2: 0.9 μ M
In vitro	LNCaP cell lines are maintained in RPMI 1640 medium containing 10% fetal bovine serum, 1% penicillin and streptomycin, as the complete culture medium. Cells (2 \times 10 ⁴) are seeded in 24-well plates and incubated in a 5% CO ₂ incubator at 37 °C for 1 day. Cultures are treated with CI-994, alone and in combination on day 2 and 4. Cells are washed on day 2 and 4 and media are changed. Mitochondrial metabolism is measured as a marker for cell growth by adding 100 μ L/well MTT (5 mg/mL in medium) with 2 hours incubation at 37 °C on Day 6. Crystals formed are dissolved in 500 μ L of DMSO. The absorbance is determined using a microplate reader at 560 nm. The absorbance data are converted into cell proliferation percentage. Each assay is performed in triplicate. (Only for Reference)

Analytical Data

HPLC	Shows Min >99% purity
H-NMR	Consistent with structure
Stability and Solubility Advice	Information on product stability, especially in solution, has rarely been reported and in most cases we can only provide a general guideline. We recommend that once the stock solution has been prepared, it be stored in equal quantities in sealed vials and used within 1 month. Avoid repeated freezing and thawing cycles. Storage conditions for some special products should be referred to their storage details.

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