

POB, Ornithine decarboxylase inhibitor

Catalog	Unit
TBI4553-10MG	10 mg
TBI4553-50MG	50 mg

Product Details

Formal Name: N-(4'-Pyridoxyl)-L-Ornithine(BOC)-Ome

Molecular Formula: C₁₉H₃₁N₃O₆

Formula Weight: 397.47

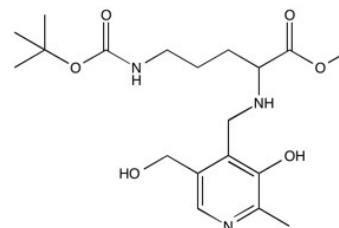
Purity: >98%

Formulation: powder

Solubility: Soluble in DMSO (up to 25 mg/ml), in Water (up to 2 mg/ml) or in Ethanol (up to 25 mg/ml).

Storage: RT

Stability: ≥ 1 year.



Applications

Ornithine decarboxylase inhibitor

Functions

Pyridoxal 5'-phosphate – dependent ornithine decarboxylase (ODC) is a key enzyme involved in polyamine synthesis and a potential cancer drug target. POB is a transition state-based, cell permeable pro-drug inhibitor of ODC. Intracellularly, POB is phosphorylated by pyridoxal kinase and the methyl ester hydrolyzed. This active inhibitor most likely binds apo-ODC resulting in greatly reduced ODC activity and inhibition of cellular proliferation. POB was able to inhibit proliferation in a wide variety of tumor cell lines: LN229 (IC₅₀ = 50 μM), Jurkat, COS7, SW2 and both high and low-grade glioblastoma multiforme. More potent than DFMO.

Application Procedures

First dissolved in DMSO (up to 25 mg/ml), in Water (up to 2 mg/ml) or in Ethanol (up to 25 mg/ml), then diluted to aqueous buffer. Solutions in DMSO or ethanol may be stored at -20°C for up to 1 month.

For research use only.