

Product Name : CDC25 Phosphatase Inhibitor I

Synonyms : BN-82002; CDC25 Phosphatase Inhibitor I; PTP Inhibitor XX

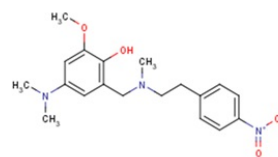
Cat No. : M19377

CAS Number : 396073-89-5

Molecular Formula : C₁₉H₂₅N₃O₄

Formula Weight : 359.42

Chemical Name : Phenol, 4-(dimethylamino)-2-methoxy-6-((methyl(2-(4-nitrophenyl)ethyl)amino)methyl)-



Description : BN-82002, also known as CDC25 Phosphatase Inhibitor I, is a cell-permeable ortho-hydroxybenzylamino compound that displays anti-tumor properties. BN-82002 acts as a potent, selective, and irreversible inhibitor of CDC25 phosphatase family (IC₅₀ = 2.4, 3.9, 6.3, 5.4, and 4.6 μM for 25A, 25B2, 25B3, 25C, and 25C-cat, respectively). BN82002 inhibits the phosphatase activity of recombinant human CDC25A, B, and C in vitro. It impairs the proliferation of tumoral cell lines and increases cyclin-dependent kinase 1 inhibitory tyrosine phosphorylation. In synchronized HeLa cells, BN82002 delays cell cycle progression at G1-S, in S phase and at the G2-M transition.

Pathway : Metabolic Enzyme/Protease

Target : Phosphatase

Receptor : CDC25A; CDC25B2; CDC25B3; CDC25C; CDC25C-cat

Solubility : DMSO : ≥ 150 mg/mL; 417.34 mM

SMILES : Oc1c(cc(cc1OC)N(C)C)CN(C)CCc2ccc(cc2)[N+](=O)[O-]

Storage : (-20°C)

Stability : ≥ 2 years

Reference :

1. Brezak MC, et al. A novel synthetic inhibitor of CDC25 phosphatases: BN82002. Cancer Res. 2004 May 1;64(9):3320-5.