Product overview

Name: Cyclosporin A
Cat No: HB0220
Short description: Potent calcineurin inhibitor. Inhibits MPTP opening.
Biological description: Potent calcineurin inhibitor (IC50 = 5 nM). Inhibits mitochondrial permeability transition pore (MPTP) opening and also P-glycoprotein inhibitor and increases AKT activation. Displays immunosuppressive, tumor promoting and pro-angiogenic properties.
Alternative names: Cyclosporine; Antibiotic S 7481F1; Ciclosporin A; CSA; cyclosporine A
Biological action: Inhibitor
Purity: >99%

Properties

Molecular Weight: 1202.63
Molecular Formula: C62H111N11O12
CAS Number: 59865-13-3
PubChem identifier: 2909
SMILES: OC(C(C=CC)C1C(=O)NC(C(=O)N(C)CC(N(C)C(CC(C)C(C(=O)N(C)C(=O)NC(C)C(C(=O)N(C)C(C(=O)NC(C)C=O)=O)CC(C)C)=O)=O)C(C)C)=O)=O)CC
InChiKey: PMATZTNYRCHOR-UHFFFAOYSA-N

Storing and Using Your Product

Storage instructions: -20°C (desiccate)
Solubility overview: soluble in DMSO (100mM) or ethanol (50mM)
Important: This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

References for Cyclosporin A

Cyclosporin A Promotes Tumor Angiogenesis in a Calcineurin-Independent Manner by Increasing Mitochondrial Reactive Oxygen Species.
Zhou AY et al (2014) Mol Cancer Res :  
PubMedID: 25009293

The P-glycoprotein inhibitor cyclosporin A differentially influences behavioural and neurochemical responses to the antidepressant escitalopram.
PubMedID: 24280122
Calcineurin phosphatase activity in T lymphocytes is inhibited by FK 506 and cyclosporin A.
PubMedID: 1373887

Immunosuppressive cyclosporin A activates AKT in keratinocytes through PTEN suppression: implications in skin carcinogenesis.
PubMedID: 20154081