DATASHEET
FK 506

Product overview

<table>
<thead>
<tr>
<th>Name</th>
<th>FK 506</th>
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</thead>
<tbody>
<tr>
<td>Cat No</td>
<td>HB0289</td>
</tr>
<tr>
<td>Alternative names</td>
<td>Tacrolimus; Fujimycin; FK-506</td>
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<tr>
<td>Purity</td>
<td>&gt;99%</td>
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<tr>
<td>Description</td>
<td>Potent calcineurin phosphatase 2B inhibitor. Enhances osteoblastic differentiation in mesenchymal cells.</td>
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</tbody>
</table>

Biological Data

Biological description

Potent calcineurin phosphatase 2B (PP2B) inhibitor (IC<sub>50</sub> = 2 nM). Interacts with FK-506 binding protein. Also inhibits IL-2 production by activated T-cells and reduces amount of GLUT4 on human adipocytes. Enhances osteoblastic differentiation in mesenchymal cells. Displays neuroprotective, antibiotic and immunosuppressant properties.

Solubility & Handling

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

Chemical Data

Chemical name: (3S,4R,5S,8R,9E,12S,14S,16S,18R,19R,26aS)-5,6,8,11,12,13,14,15,16,17,18,19,24,25,26,26a-Hexadecahydro-5,19-dihydroxy-3-[(1E)-2-[(1R,3R,4R)-4-hydroxy-3-methoxycyclohexyl]-1-methyltheneyl]-14,16-dimethoxy-4,10,12,18-tetramethyl-8-(2-propen-1-yl)-15,19-epoxy-3H-pyrido[2,1-c][1,4]oxaazacyclotricosine-1,7,20,21(4H,23H)tetrone
Molecular Weight: 804.02
Chemical structure
Molecular Formula: C<sub>44</sub>H<sub>69</sub>NO<sub>12</sub>·H<sub>2</sub>O
CAS Number: 104987-11-3
Possible nitric oxide modulation in protective effect of FK-506 against 3-nitropropionic acid-induced behavioral, oxidative, neurochemical, and mitochondrial alterations in rat brain.


PubMedID 20550427

The complex of FK506-binding protein 12 and FK506 inhibits calcineurin phosphatase activity and IgE activation-induced cytokine transcripts, but not exocytosis, in mouse mast cells.


PubMedID 7530743

Cyclosporine A and Tacrolimus Reduce the Amount of GLUT4 at the Cell Surface in Human Adipocytes: Increased Endocytosis as a Potential Mechanism for the Diabetogenic Effects of Immunosuppressive Agents.


PubMedID 25004245

Mode of action of tacrolimus (FK506): molecular and cellular mechanisms.


PubMedID 8588225