Product Name: Ritonavir  
Catalog No.: 5856  
Batch No.: 1

CAS Number: 155213-67-5

IUPAC Name: 5-Thiazolylmethyl (3S,4S,6S,9S)-4-hydroxy-12-methyl-9-(1-methylethyl)-13-[2-(1-methylethyl)-4-thiazolyl]-8,11-dioxo-3,6-bis(phenylmethyl)-2,7,10,12-tetraazatridecanoate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₇H₄₈N₆O₅S₂
Batch Molecular Weight: 720.94
Physical Appearance: White solid
Solubility: DMSO to 20 mM with gentle warming ethanol to 10 mM
Storage: Store at -20°C

2. ANALYTICAL DATA

HPLC: Shows 99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

<table>
<thead>
<tr>
<th>Carbon</th>
<th>Hydrogen</th>
<th>Nitrogen</th>
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<tbody>
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<td>Theoretical</td>
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<tr>
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</tbody>
</table>
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Description:
HIV-1 and HIV-2 protease inhibitor (EC50 values are 0.022-0.13 and 0.16 μM, respectively). Blocks the metabolism of protease inhibitors by liver enzyme cytochrome P450-3A4 (CYP3A4). Orally bioavailable. When used in combination with lopinavir, improves outcome in an animal model of MERS-CoV infection.

Physical and Chemical Properties:
Batch Molecular Formula: C37H48N6O9S2
Batch Molecular Weight: 720.94
Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at -20°C

Solubility & Usage Info:
DMSO to 20 mM with gentle warming
Ethanol to 10 mM

Stability and Solubility Advice:
Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use