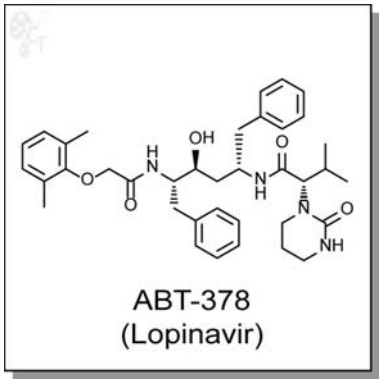
Product Specification Sheet

Product Name: ABT-378 (Lopinavir)

Catalog Number: C2378



Technical information:

Chemical Formula:	$C_{37}H_{48}N_4O_5$
CAS #:	192725-17-0
Molecular Weight:	628.8
Purity:	> 98%
Appearance:	White solid
Solubility:	Soluble in DMSO up to 100 mM
Chemical Name:	(S)-N-((2S,4S,5S)-5-(2-(2,6-dimethylphenoxy)acetamido)-4-hydroxy-1,6-diphenylhexan-2-yl)-3-methyl-2-(2-oxo-tetrahydropyrimidin-1(2H)-yl)butanamide
Storage:	Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.
Shelf Life:	In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.

Handling:

- To make 10 mM stock solution, add 0.159mL of DMSO for each mg of ABT-378 (Lopinavir).
- For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity:

Lopinavir (ABT-378), designed in response to Val82 mutant strains of HIV [1], is a potent inhibitor of HIV protease with Ki of 1.3-3.6 pM. Lopinavir inhibits replication of HIV-1 with an EC50 of 6-17 nM. [2]

Ritonavir was found to inhibit the metabolism of lopinavir with no other antagonistic effects; therefore lopinavir's drug exposure can be enhanced by co-formulation with ritonavir. In the presence of 50% human serum, the mean EC50 of lopinavir for five laboratory HIV-1 isolates ranged from 65 to 289 nM. [3]

Reference:

1. Stoll et al., X-ray Crystallographic Structure of ABT-378 (Lopinavir) Boudn to HIV-1 Protease. Bioorg. Med. Chem. 2002, 10, 2803-2806. Pubmed ID: 12057670
2. Sham et al., ABT-378, a Highly Potent Inhibitor of the Human Immunodeficiency Virus Protease. Antimicrob. Agents Chemother. 1998, 42(12), 3218-3224. Pubmed ID: 9835517
3. Qazi et al., Lopinavir/ritonavir (ABT-378/r). Expert Opin. Pharmacother. 2002, 3(2), 315-327.

To reorder: http://www.cellagentech.com/ABT-378-Lopinavir/

For Technical Support: technical@cellagentech.com

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