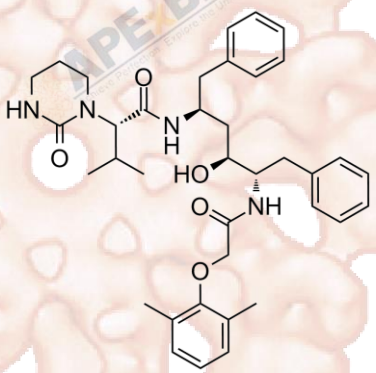
Product Data Sheet

Lopinavir

Cat. No.:	A8204
CAS No.:	192725-17-0
Formula:	C37H48N4O5
M.Wt:	628.81
Synonyms:	Lopinavir
Target:	Proteases
Pathway:	HIV Protease
Storage:	Store at -20°C



Solvent & Solubility

In Vitro

⩾31.45 mg/mL in DMSO; insoluble in H2O; ⩾48.3 mg/mL in EtOH

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	1.5903 mL	7.9515 mL	15.9031 mL
5 mM	0.3181 mL	1.5903 mL	3.1806 mL
10 mM	0.1590 mL	0.7952 mL	1.5903 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	HIV protease inhibitor,highly potent
IC_{50} & Target	1.3 pM (Ki) (HIV protease)

In Vitro

Cell Viability Assay

Cell Line:	MT4 cells
Preparation method：	The solubility of this compound in DMSO is > 31.5 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below - 20 °C for several months.
Reacting conditions:	4 ~ 52 nM

	Applications:	HIV with multiple mutations was markedly less resistant to Lopinavir than to Ritonavir. Although the activity of Lopinavir declined significantly against the multiply mutated strains compared with its activity against the baseline strains, the extent of the decline was substantially less than that of Ritonavir. Furthermore, the EC50 value of Lopinavir against HIV with multiple mutations was 10-fold lower than that of Ritonavir.
In Vivo	**Animal experiment**	
	Animal models:	Rats
	Dosage form:	10 mg/kg; p.o.
	Applications:	The Cmax and oral bioavailability of Lopinavir in rats were 0.8 μg/mL and 25%, respectively. At 6th hr, the plasma level of Lopinavir declined below the level of quantitation (0.01 μg/mL). However, co-administration of Lopinavir with Ritonavir (10 mg/kg) maintained the concentrations of Lopinavir in excess of 3 μg/mL with low variability. In addition, the area under the plasma concentration-time curve from 0 ~ 8 hrs for Lopinavir increased 14-fold due to Ritonavir co-administration.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Sham HL, Kempf DJ, Molla A, Marsh KC, Kumar GN, Chen CM, Kati W, Stewart K, Lal R, Hsu A, Betebenner D, Korneyeva M, Vasavanonda S, McDonald E, Saldivar A, Wideburg N, Chen X, Niu P, Park C, Jayanti V, Grabowski B, Granneman GR, Sun E, Japour AJ, Leonard JM, Plattner JJ, Norbeck DW. ABT-378, a highly potent inhibitor of the human immunodeficiency virus protease. Antimicrob Agents Chemother. 1998 Dec;42(12):3218-24.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for

long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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