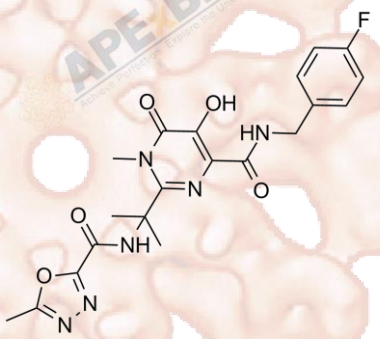
Product Data Sheet

Raltegravir (MK-0518)

Cat. No.:	A4073
CAS No.:	518048-05-0
Formula:	C20H21FN6O5
M.Wt:	444.4
Synonyms:	Raltegravir,MK0518
Target:	Proteases
Pathway:	HIV Integrase
Storage:	Store at -20°C



Solvent & Solubility

In Vitro

insoluble in EtOH; insoluble in H2O; ⩾19.95 mg/mL in DMSO

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.2502 mL	11.2511 mL	22.5023 mL
5 mM	0.4500 mL	2.2502 mL	4.5005 mL
10 mM	0.2250 mL	1.1251 mL	2.2502 mL

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

Biological Activity

Shortsummary	HIV-1 integrase inhibitor
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	MT-4 cells
Preparation method:	The solubility of this compound in DMSO is > 20 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:	0.0001 ~ 1 μM; 5 days

	Applications:	Raltegravir inhibited SIVmac251 replication at the low nanomolar, the EC50 value of which was approximately one order of magnitude lower than that of HIV-1 IIIB. However, HIV-1 exhibited faster cytopathogenicity kinetics than SIVmac251. The results of antigen-capture ELISA assays demonstrated that in human T-cell lines, Raltegravir exhibited similar inhibition on SIVmac251 and HIV-1 replication.
In Vivo	**Animal experiment**	
	Animal models:	SIVmac251-infected rhesus macaques
	Dosage form:	100 mg; p.o.; b.i.d.
	Applications:	In SIVmac251-infected rhesus macaques, Raltegravir significantly decreased the viral load, but only in seven days of treatment. One non-human primate showed an undetectable viral load after Raltegravir monotherapy. However, this primate had a low viral load before treatment was initiated. In addition, The combination of two NRTIs/NtRTIs plus Raltegravir stably suppressed SIVmac251 viral load, but not the proviral DNA, in non-human primates.
	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]. Lewis MG1, Norelli S, Collins M, Barreca ML, Iraci N, Chirullo B, Yalley-Ogunro J, Greenhouse J, Titti F, Garaci E, Savarino A. Response of a simian immunodeficiency virus (SIVmac251) to raltegravir: a basis for a new treatment for simian AIDS and an animal model for studying lentiviral persistence during antiretroviral therapy. Retrovirology. 2010 Mar 16;7:21.

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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