### Product Specification Sheet

**Product Name:** MK-0518 (Raltegravir)  
**Catalog Number:** C6051

#### Technical information:
- **Chemical Formula:** C₂₀H₂₂FN₆O₅  
- **CAS #:** 871038-72-1  
- **Molecular Weight:** 444.42  
- **Purity:** > 98%  
- **Appearance:** White solid  
- **Solubility:** Soluble in DMSO up to 100 mM  
- **Chemical Name:** N-(4-fluorobenzyl)-5-hydroxy-1-methyl-2-(2-(2-methyl-1,3,4-oxadiazole-5-carboxamido)propan-2-yl)-6-oxo-1,6-dihydropyrimidine-4-carboxamide  
- **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 0.225mL of DMSO for each mg of MK-0518 (Raltegravir)  
- For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

#### Biological Activity:
Raltegravir (Isentress) is a first-in-class, orally-available, oxadiazole-based inhibitor of HIV-1 integrase, inhibiting strand transfer in vitro with an IC₅₀ of 2-7 nM. [1] It is >1000-fold more selective for HIV-1 integrase when compared to other phosphoryltransferases, such as the polymerase and RNase H activities of HIV-1 reverse transcriptase and the human polymerases alpha, beta, and gamma.

Raltegrav has a IC₉₅ in human T lymphoid cell cultures of 31 nM and was also active against HIV-2 when tested in CEMx174 cells, with an IC₉₅ of 6nM. [2]

Raltegrav has been shown to be a potent and selective against Xenotropic murine leukemia-related retrovirus (XMRV) at submicromolar concentrations in MCF-7 breast cancer (EC₅₀ = 5 nM, EC₉₀ = 3.5 uM) and LNCaP prostate cancer (EC₅₀ = 30 nM, EC₉₀ 0.46 um) cell lines. [3]

#### Reference:

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**To reorder:** [http://www.cellagentech.com/MK-0518-Raltegravir/](http://www.cellagentech.com/MK-0518-Raltegravir/)  
**For Technical Support:** [technical@cellagentech.com](mailto:technical@cellagentech.com)

*Chemicals are sold for research use only, not for clinical or diagnostic use.*