

Product Specification Sheet

Product Name: Zanamivir

Catalog Number: C9262

Technical information:

Chemical Formula: $C_{12}H_{20}N_4O_7$

CAS #: 139110-80-8

Molecular Weight: 332.31

Purity: > 98%

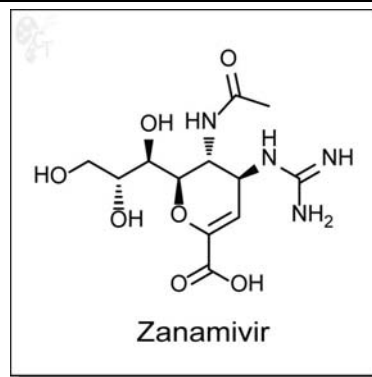
Appearance: White solid

Solubility: Soluble in DMSO up to 50 mM

Chemical Name: (2R,3R,4S)-3-acetamido-4-guanidino-2-((1R,2R)-1,2,3-trihydroxypropyl)-3,4-dihydro-2H-pyran-6-carboxylic acid

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 0.301 mL of DMSO for each mg of Zanamivir.
 - For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: Zanamivir is a dihydropyran-based, sialic acid analog inhibitor of the viral enzyme neuraminidase. Zanamivir's mode of action is blockage of sialic acid cleavage, thereby preventing further virus distribution. For type A viruses zanamivir has IC50s of 0.35 nM for the H1N1 subtype, and 1.1 nM for the H3N2 subtype. [1]

In plaque reduction in vitro assays, zanamivir inhibits a wide range of Type A and Type B influenza viruses with IC50s of plaque formation ranging from 5 to 14 nM in laboratory-passaged strains, and 20 to 1600 nM for clinical isolates. In human respiratory epithelial cells, EC90s of virus yields were determined to be less than 0.01 µg/mL at 24h for both H1N1 and H3N2 subtypes. [2]

- Reference:**
1. Colman et al., Zanamivir: an influenza neuraminidase inhibitor. *Expert Rev. Anti. Infect. Ther.* 2005, 3(2), 191-199.
 2. Elliott et al., Zanamivir: from drug design to the clinic. *Phil. Trans. R. Soc. Lond.* 2001, 356, 1885-1893.
 3. McNicholl et al., Neuraminidase Inhibitors: Zanamivir and Oseltamivir. *Annals Pharmacother.* 2001, 35, 57-70.

To reorder: <http://www.cellagentech.com/Zanamivir/>

For Technical Support: technical@cellagentech.com

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