## Product Specification Sheet

### Product Name: Zanamivir
### Catalog Number: C9262

#### Technical information:
- **Chemical Formula:** C_{12}H_{20}N_{4}O_{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 ug/mL at 24h for both H1N1 and H3N2 subtypes. [2]

#### Reference:

---

For Technical Support: [technical@cellagentech.com](mailto:technical@cellagentech.com)

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