

## Product Datasheet

### Prulifloxacin (orb1221008)

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Catalog Number</b>    | orb1221008                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Category</b>          | Small Molecules                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>       | <p>Prulifloxacin is a broad-spectrum fluoroquinolone antibiotic. It Inhibits bacterial DNA synthesis by inhibiting the activity of bacterial DNA topoisomerase II and IV.(In Vivo):After oral administration of NM441 at a dose of 20 mg/kg to dogs, the peak concentration of NM394 in plasma was 2.39 micrograms/ml, whereas it was 0.63 micrograms/ml for NM394 administered alone. NM441 was as effective as ofloxacin and was twice as effective as ciprofloxacin against systemic infection with Staphylococcus aureus. Against infections with streptococci, NM441 was two to three times as effective as ofloxacin and five times as effective as ciprofloxacin.</p> |
| <b>Target</b>            | Topoisomerase                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Purity</b>            | >98% (HPLC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>MW</b>                | 461.46                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Target Areas</b>      | Topo II  Topo IV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Solubility (25°C)</b> | DMSO: 15 mg/mL (32.5 mM);Water: Insoluble                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>CAS Number</b>        | 123447-62-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Formula</b>           | C <sub>21</sub> H <sub>20</sub> FN <sub>3</sub> O <sub>6</sub> S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>SMILES</b>            | <chem>CC1Sc2c(C(O)=O)c(=O)c3cc(F)c(cc3n12)N1CCN(Cc2oc(=O)oc2C)CC1</chem>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Chemical Name</b>     | 6-fluoro-1-methyl-7-(4-((5-methyl-2-oxo-13-dioxol-4-yl)methyl)piperazin-1-yl)-4-oxo-1H4H-[13]thiazeto[32-a]quinoline-3-carboxylic acid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Storage</b>           | Storage temperature: -20°C. Stability: ≥ 2 years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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|                        |                                 |
|------------------------|---------------------------------|
| <b>Note</b>            | For research use only           |
| <b>Expiration Date</b> | 12 months from date of receipt. |

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