

NP213 TFA (942577-31-3 free base)

## Chemical Properties

CAS No. :

Formula: C44H85F3N28O9

Molecular Weight: 1207.32

Keep away from moisture

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

## Biological Description

Description	NP213 TFA is a rapidly acting and first-in-class synthetic antimicrobial peptide (AMP) with anti-fungal activity. It targets the fungal cytoplasmic membrane via membrane perturbation and disruption.
Targets(IC50)	Others
In vitro	NP213 (500-1000 µg/mL; 18 hours) increases the number of PI-stained <i>T. rubrum</i> NCPF0118 cells in samples [1]. NP213 shows different MIC values against <i>T. rubrum</i> NCPF0118, and the MICs varies depending on the source of the keratin. The MIC values are 16-32 mg/L, 125 mg/L, and 250 mg/L for NP213 in 1640 media containing human nail Keratin, human skin Keratin, and Lamb's wool Keratin, respectively [1]. NP213 TFA (2-3 hours; 0-8 µg/ml) has great activity against clinically relevant yeast, including <i>Candida</i> spp, <i>Cryptococcus</i> spp, and <i>Trichosporon</i> spp. For all 122 yeast isolates, with the median MIC100 values of 1-2 µg/ml [3].
In vivo	In Murine models of acute disseminated candidiasis, NP213 is tolerated and efficacious and exhibits a half-life of approximately 4.5 h. NP213 TFA (25 mg/kg) is well tolerated in mice [3].

### Preparing Stock Solutions

---

	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	0.8283 mL	4.1414 mL	8.2828 mL
5 mM	0.1657 mL	0.8283 mL	1.6566 mL
10 mM	0.0828 mL	0.4141 mL	0.8283 mL
50 mM	0.0166 mL	0.0828 mL	0.1657 mL

---

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Mercer DK, et al. Improved Methods for Assessing Therapeutic Potential of Antifungal Agents against Dermatophytes and Their Application in the Development of NP213, a Novel Onychomycosis Therapy Candidate. *Antimicrob Agents Chemother.* 2019 Apr 25;63(5). pii: e02117-18.

Neelabh, et al. Sequential and Structural Aspects of Antifungal Peptides from Animals, Bacteria and Fungi Based on Bioinformatics Tools. *Probiotics Antimicrob Proteins.* 2016 Jun;8(2):85-101.

Novamycin®/NP339 Technology Summary

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel: 781-999-4286 E\_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481