

## Top 10 Predicted Synergistic Pairs (HALO-CV1)

Drug Pair	P(syn)	P(ant)	Drug Classes (A–B)	CC Cosine Similarity	CC Euclidean Similarity
Bacitracin + Vancomycin	0.998	0.002	Polypeptide antibacterial – Glycopeptide	0.599	0.724
Bacitracin + Oritavancin	0.997	0.003	Polypeptide antibacterial – Glycopeptide (lipoglycopeptide)	0.653	0.711
Mecillinam + Cefuroxime	0.995	0.005	Penicillin (amidino) – Cephalosporin (2nd gen)	0.627	0.693
Bacitracin + Minocycline	0.994	0.006	Polypeptide antibacterial – Tetracycline-class antibiotic	0.543	0.620
Cefuroxime + Penicillin g	0.993	0.007	Cephalosporin (2nd gen) – Natural penicillin	0.655	0.660
Bacitracin + Thymol	0.993	0.007	Polypeptide antibacterial – Monoterpene phenol	0.456	0.487
Cefuroxime + Amikacin	0.993	0.007	Cephalosporin (2nd gen) – Aminoglycoside	0.545	0.596
Bacitracin + Procaine	0.992	0.008	Polypeptide antibacterial – Local anesthetic (ester)	0.463	0.561
Bacitracin + Daptomycin	0.992	0.008	Polypeptide antibacterial – Lipopeptide antibiotic	0.762	0.759
Telithromycin + Tedizolid	0.991	0.009	Ketolide – Oxazolidinone	0.477	0.533