

Table S2. Reliability of AI-based activity prediction methods used to measure the antimicrobial properties of a dataset of 1000 randomly generated peptides. The percentage of positive hits among the randomly generated data (identifying a sequence as AMP when it is not) is shown for each of the tools.

| Server | DBAASP | Antimicrobial Peptide Scanner | | CAMPR4 | | |
|--|--------|-------------------------------|-------|--------|-----|-----|
| Method | DBAASP | RF | Earth | RF | SVM | ANN |
| % of positive hits among the randomly generated data | 6.72 | 6.6 | 14.4 | 18.4 | 8.2 | 7.2 |