

Table S9: Performance of hybrid model (BLAST+ML) on the validation set of gram-negative ABPs independent at different e-value

E-value	Correct hits (BLAST+ML)	Sn	Sp	Acc	AUC	AUPRC	MCC
1.00E-20	93.30%	92.4	94.2	93.3	0.98	0.98	0.87
1.00E-10	93.99%	94.2	93.8	94.0	0.98	0.97	0.88
1.00E-06	94.16%	94.5	93.8	94.2	0.97	0.97	0.88
0.0001	94.16%	94.2	94.2	94.2	0.97	0.97	0.88
0.001	94.33%	94.5	94.2	94.3	0.97	0.97	0.89
0.01	94.67%	94.9	94.5	94.7	0.97	0.97	0.89
0.1	94.85%	94.9	94.9	94.9	0.97	0.97	0.90
1	94.16%	93.8	94.5	94.2	0.97	0.97	0.88
10	91.41%	92.1	90.7	91.4	0.96	0.96	0.83
50	90.21%	90.7	89.7	90.2	0.96	0.96	0.80
100	90.03%	90.4	89.7	90.0	0.96	0.96	0.80
200	89.86%	90.0	89.7	89.9	0.96	0.96	0.80
1000	89.18%	88.7	89.7	89.2	0.96	0.96	0.78
Only ML	93.64%	92.4	94.2	93.3	0.98	0.98	0.87

Sn: Sensitivity, **Sp**: Specificity, **Acc**: Accuracy, **MCC**: Matthews Correlation Coefficient, **AUC**: Area Under the Receiver Operating Characteristic curve, **AUPRC**: Area Under the Precision-Recall Curve