

Table S12: Performance of hybrid model (MOTIF+ML) on the validation set of gram-negative ABPs independent set at different frequencies

Frequency of a motif	Correct hits (MOTIF+ML)	Sn	Sp	Acc	AUC	AUPRC	MCC
fp10_motif	90.21%	93.5	86.9	90.2	0.96	0.95	0.81
fp20_motif	92.27%	92.8	91.8	92.3	0.97	0.97	0.85
fp30_motif	93.30%	92.8	93.8	93.3	0.97	0.97	0.87
Only ML	93.64%	92.4	94.9	93.6	0.98	0.98	0.86

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