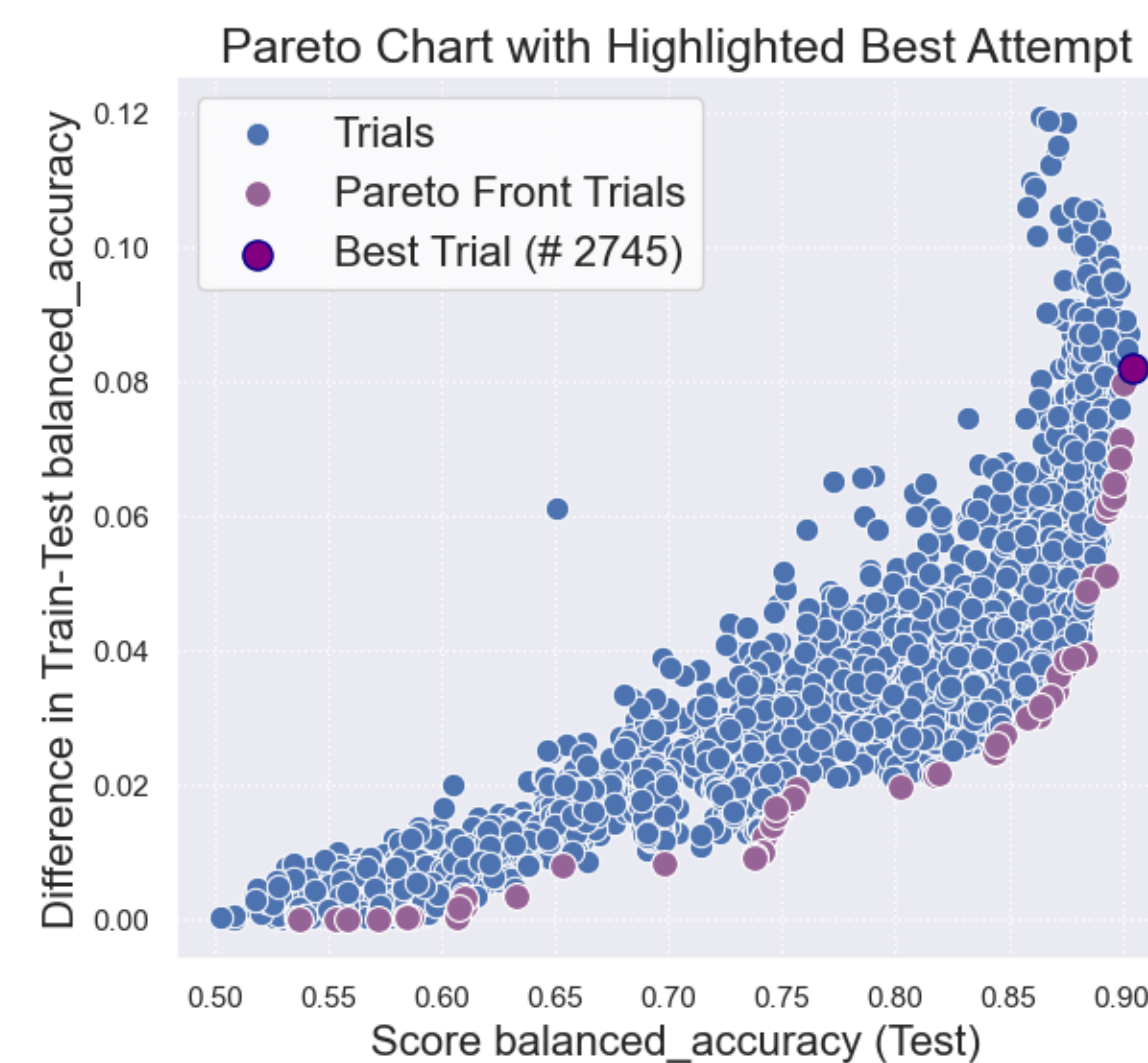
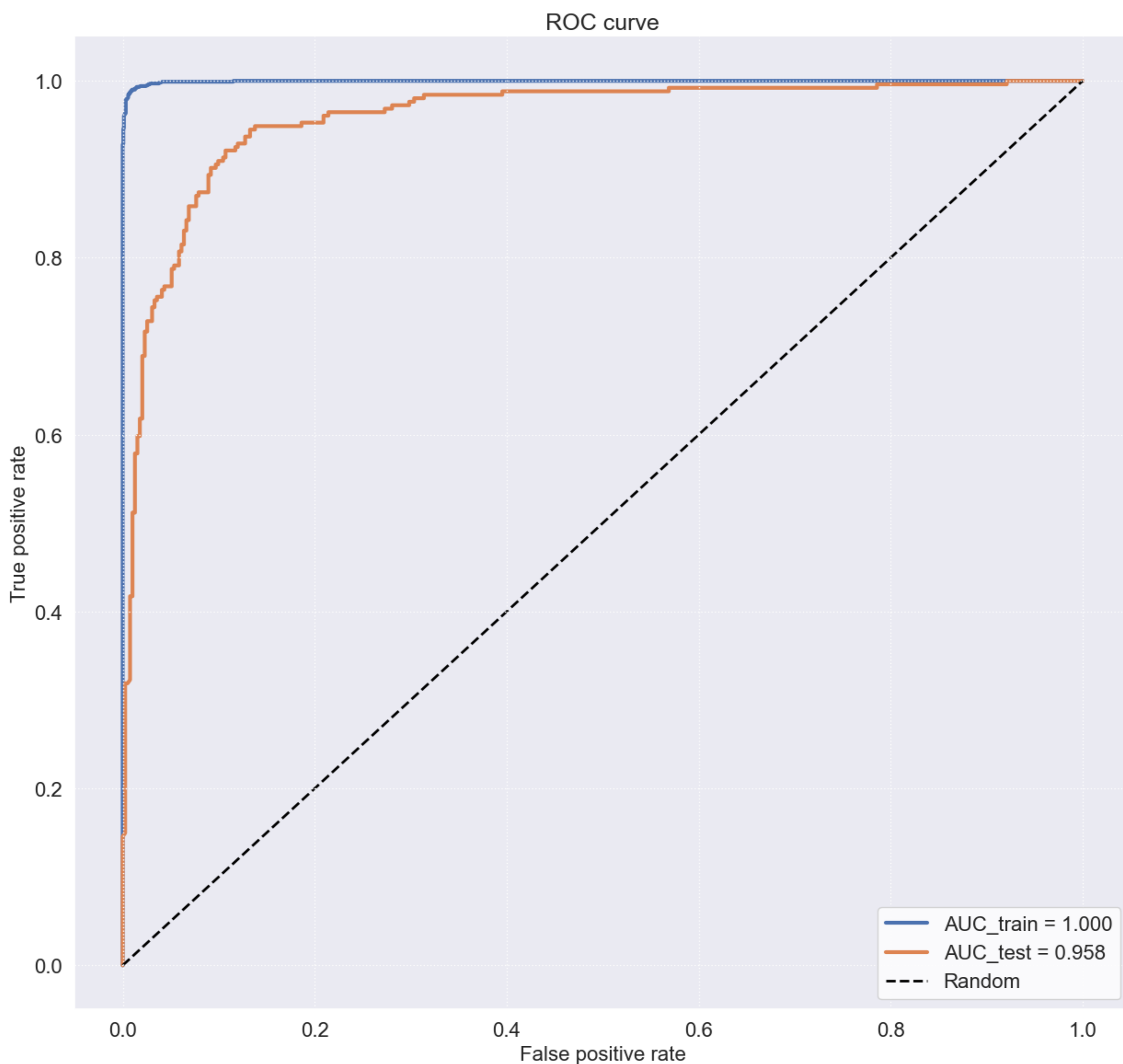
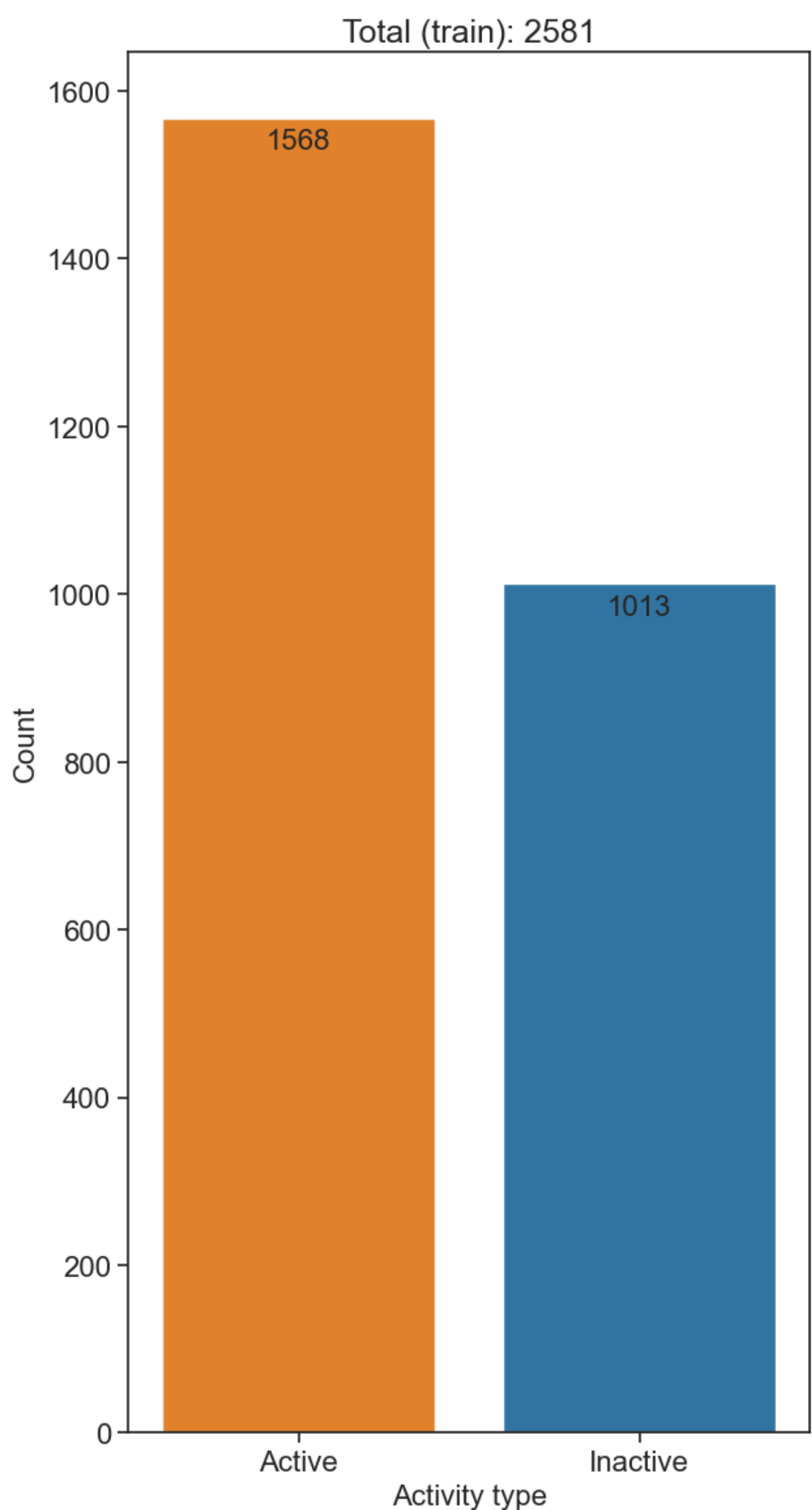
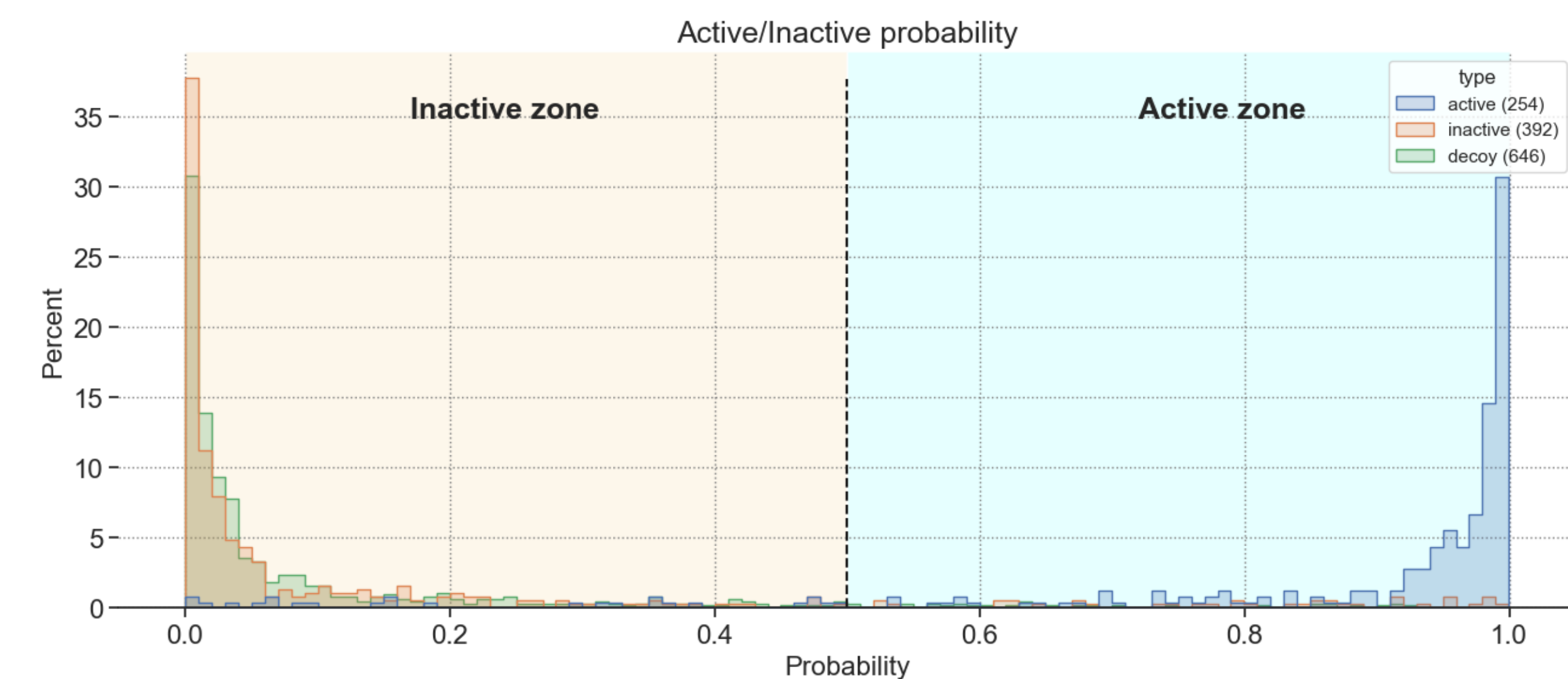
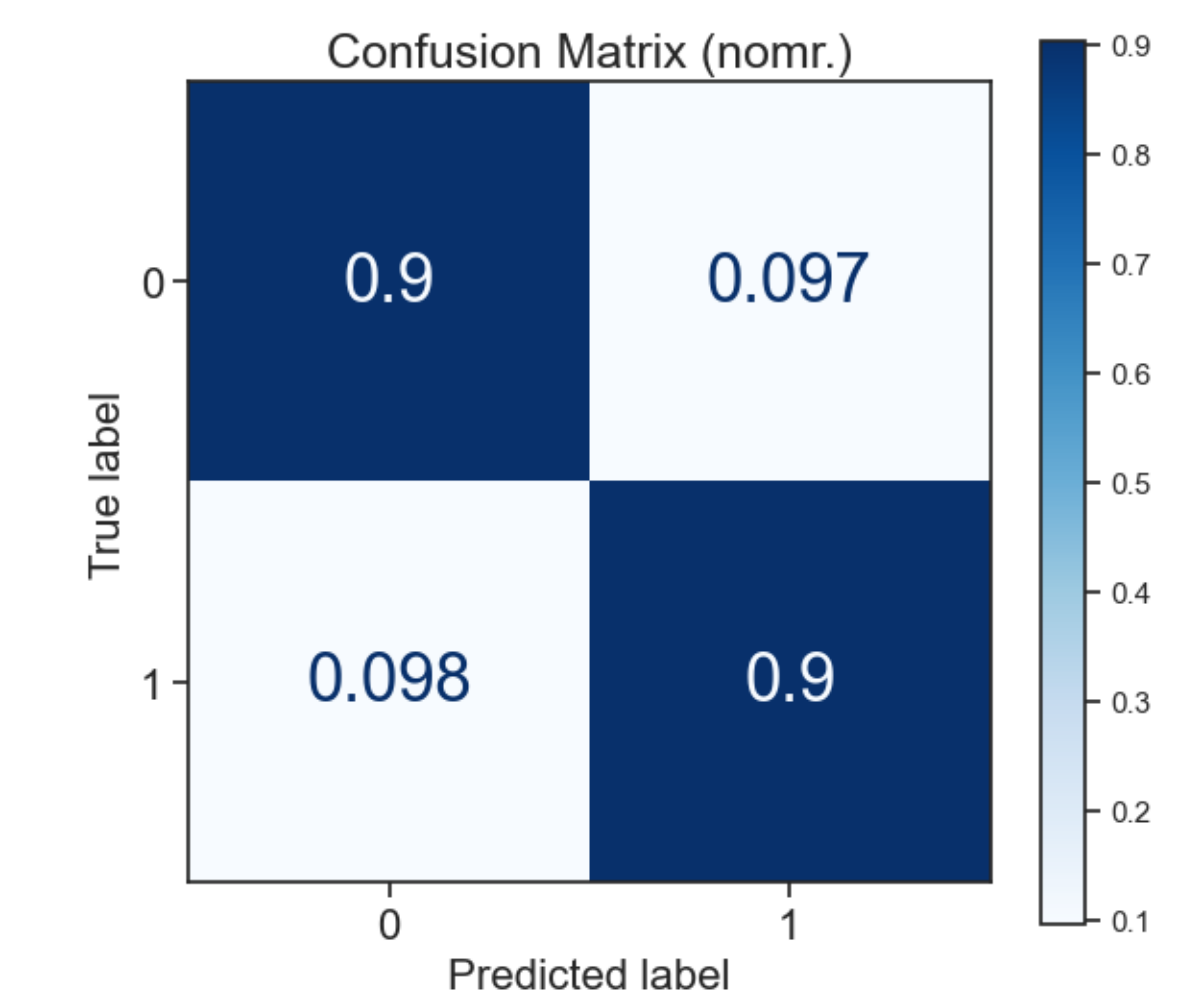
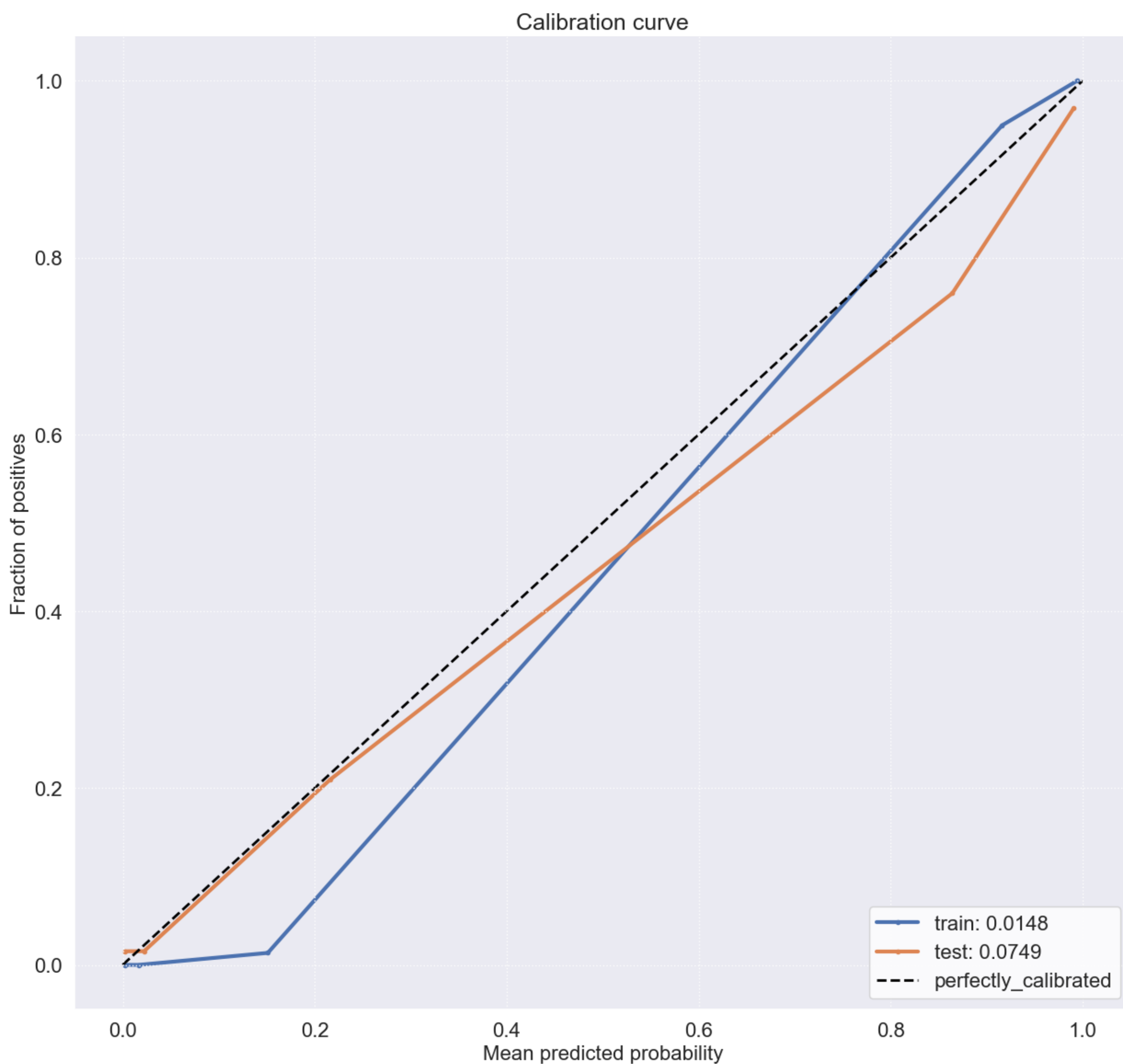
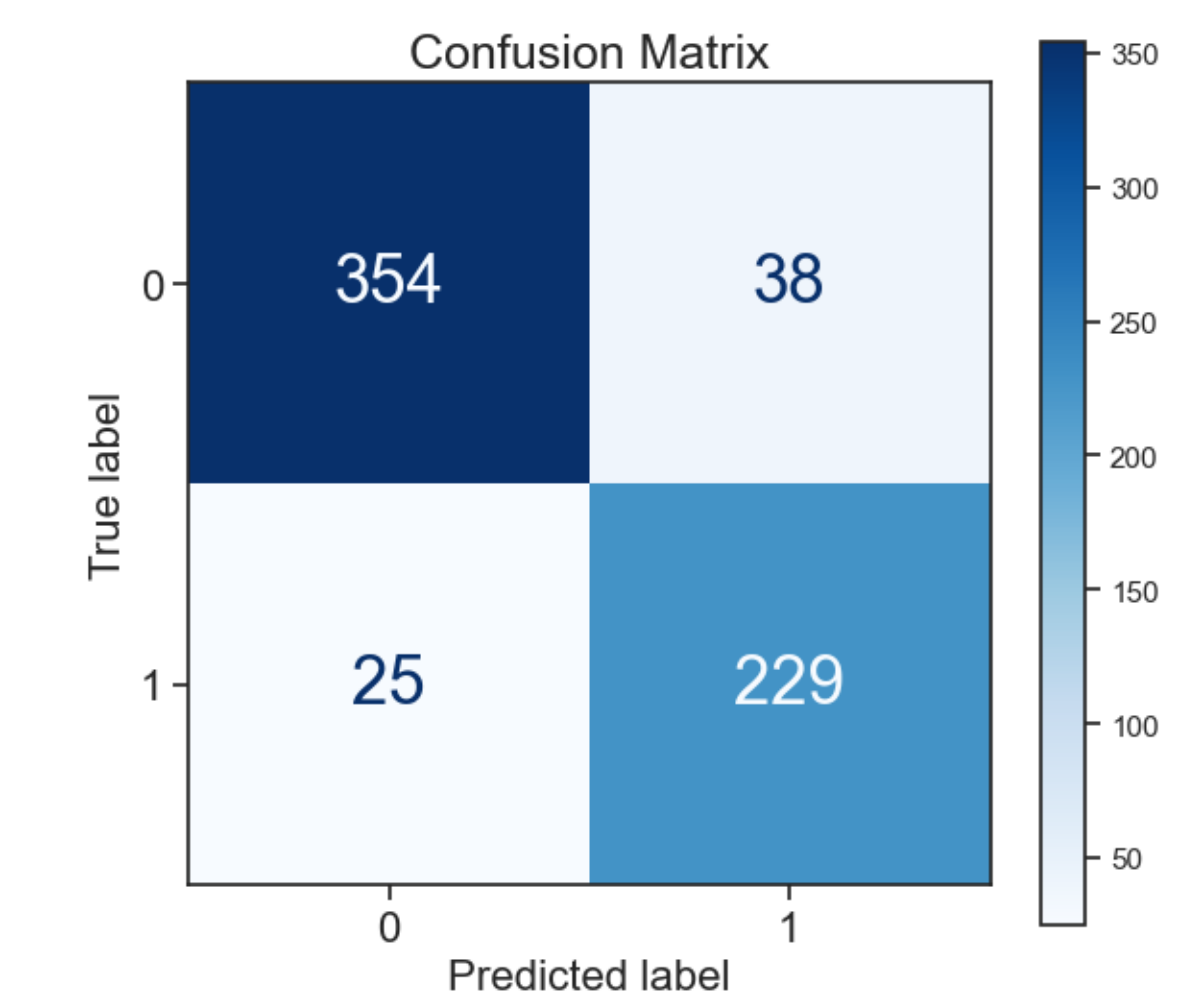


Protein: P31645 - metric: balanced_accuracy

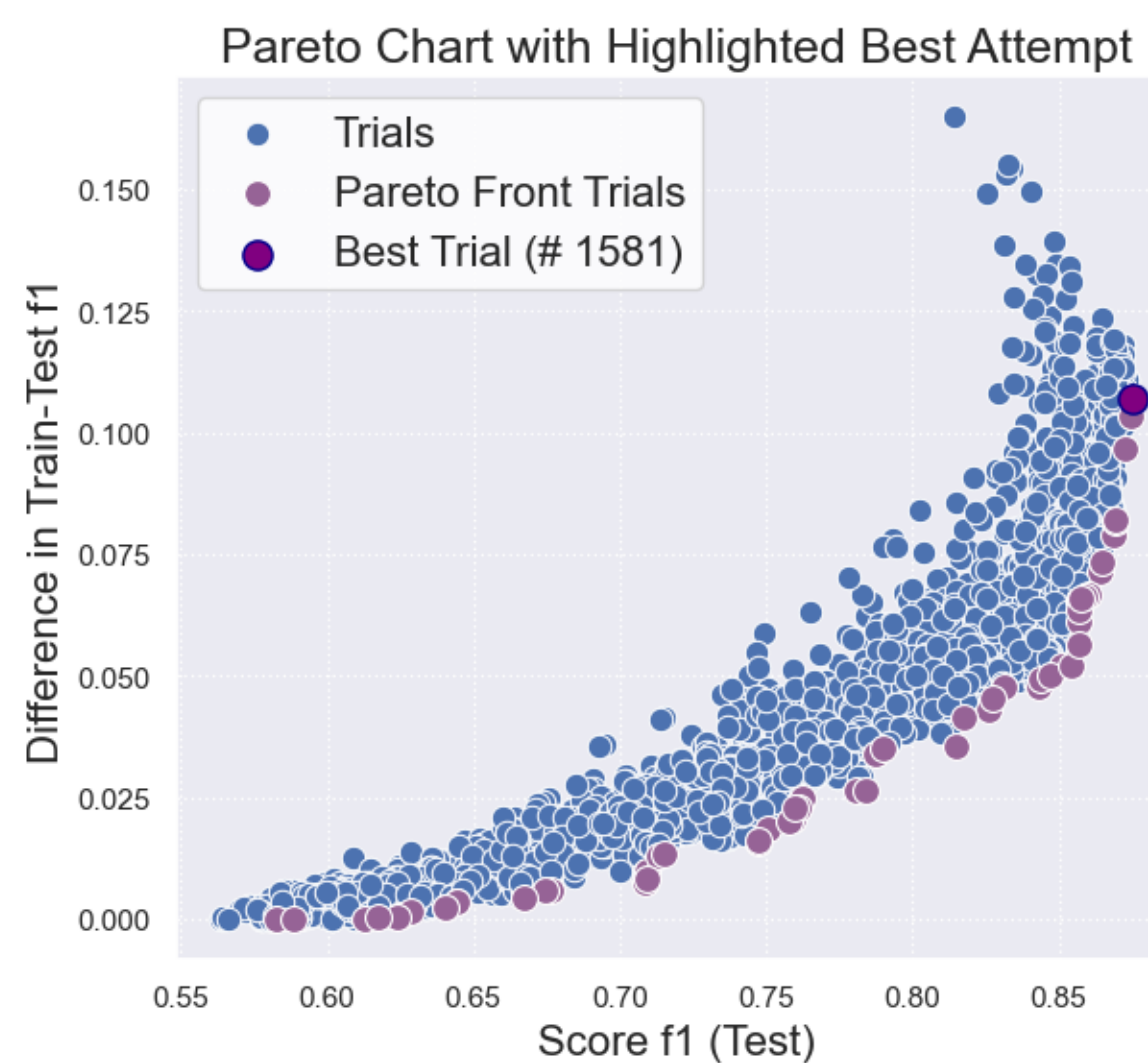
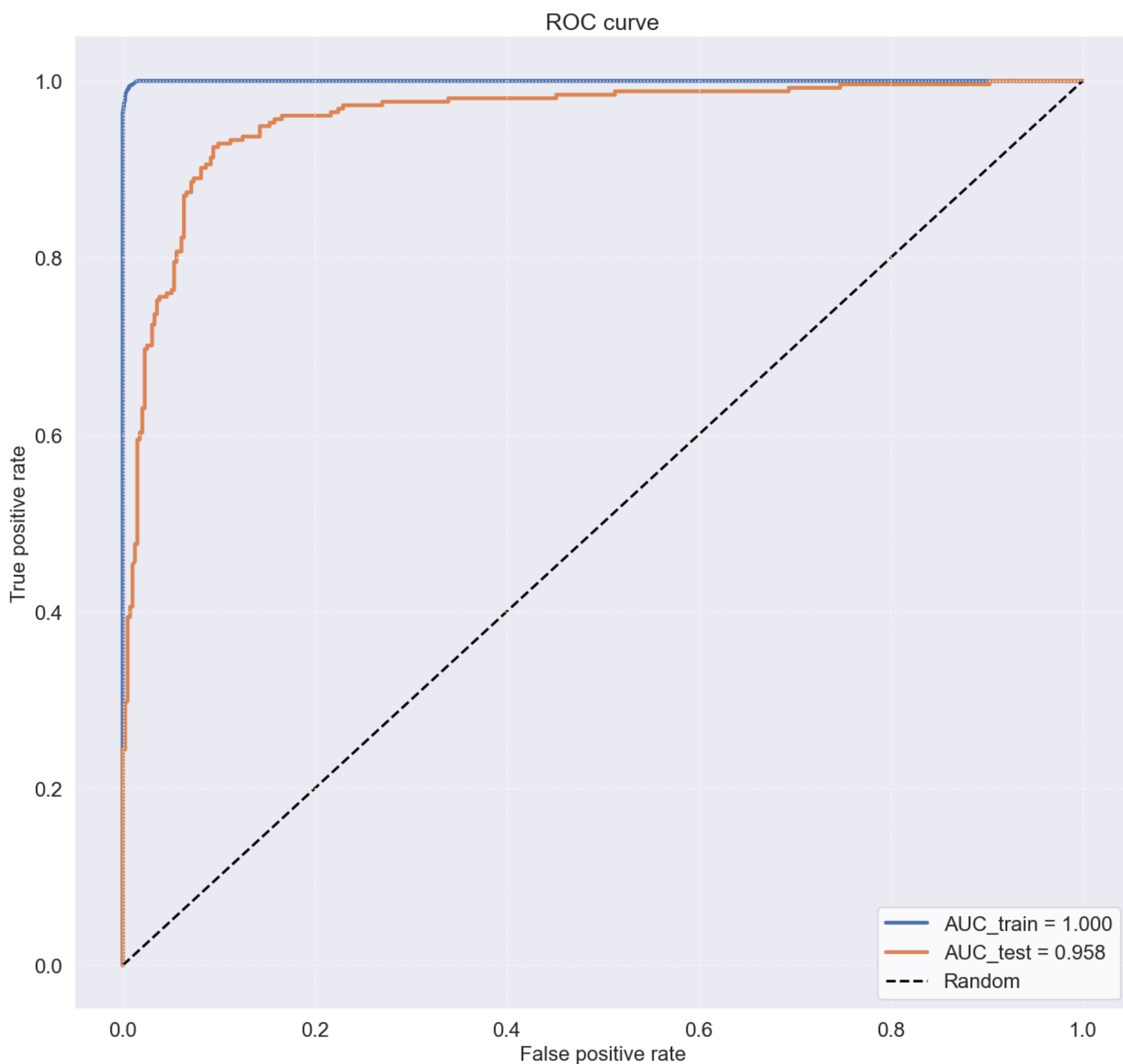
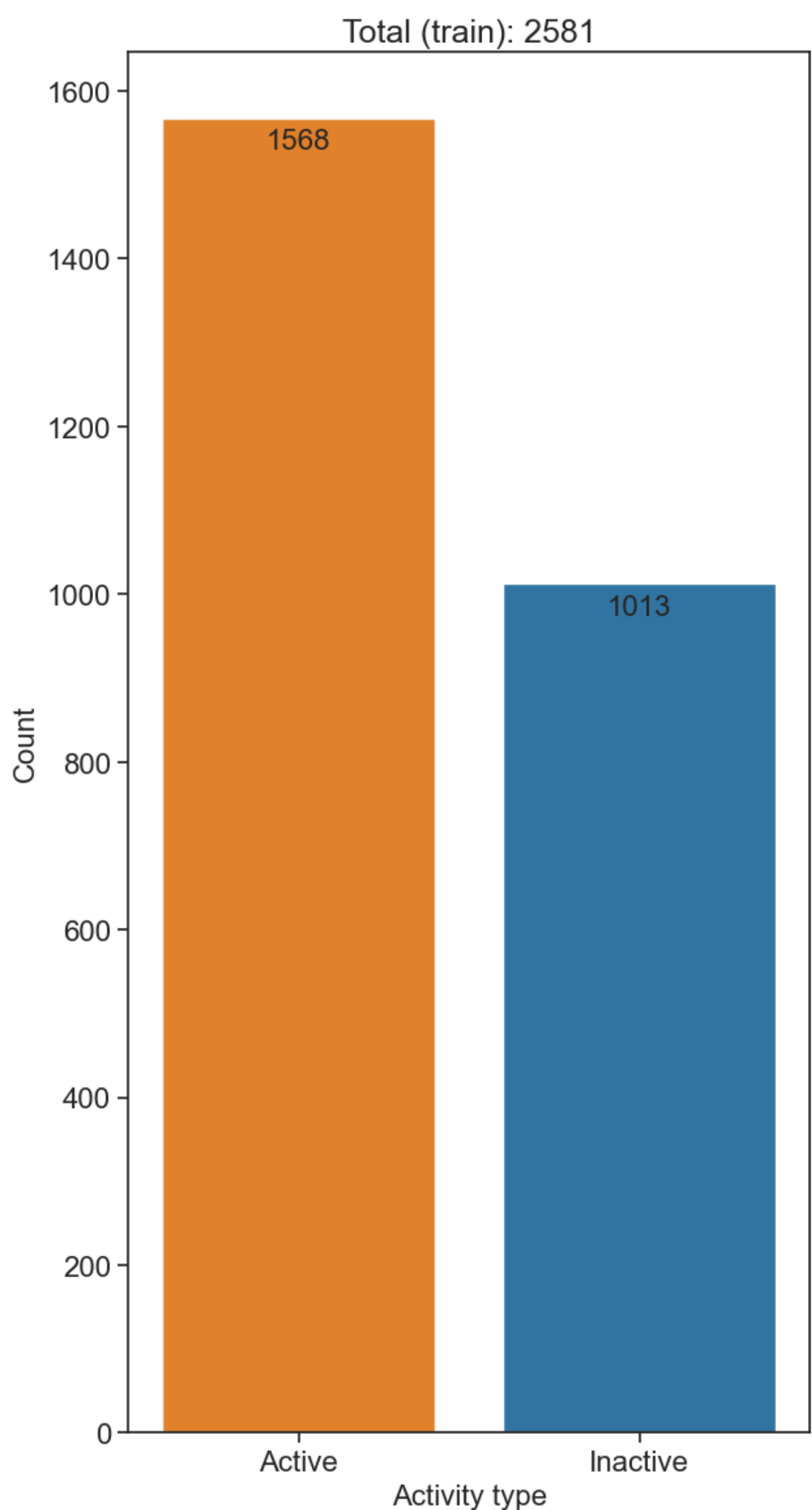


XGBoost Parameters	Value
alpha	0.4346
colsample_bytree	0.5581
gamma	0.5752
lambda	1.3507
learning_rate	0.0995
max_depth	9.0
min_child_weight	1.0
n_estimators	904.0
reg_alpha	0.8875
reg_lambda	0.6738
scale_pos_weight	2.4352
subsample	0.6619

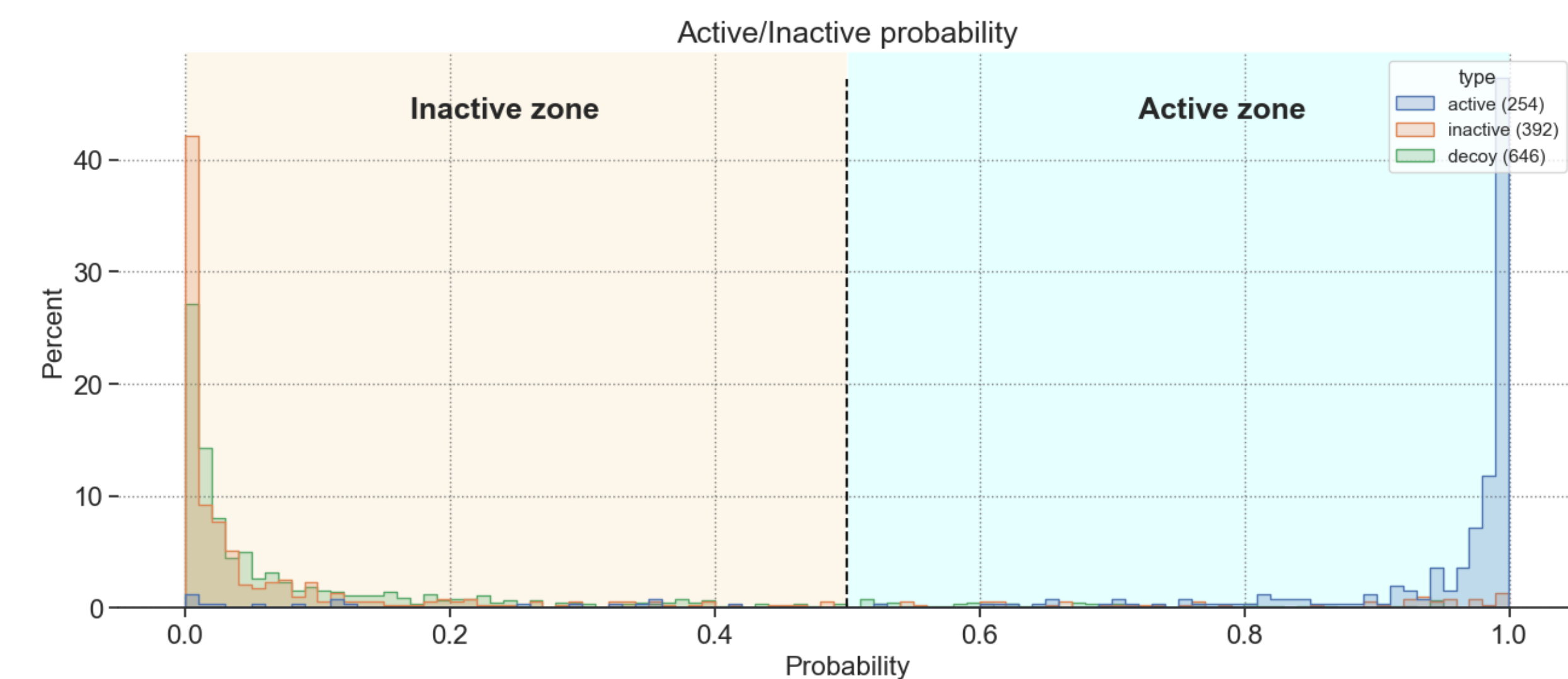
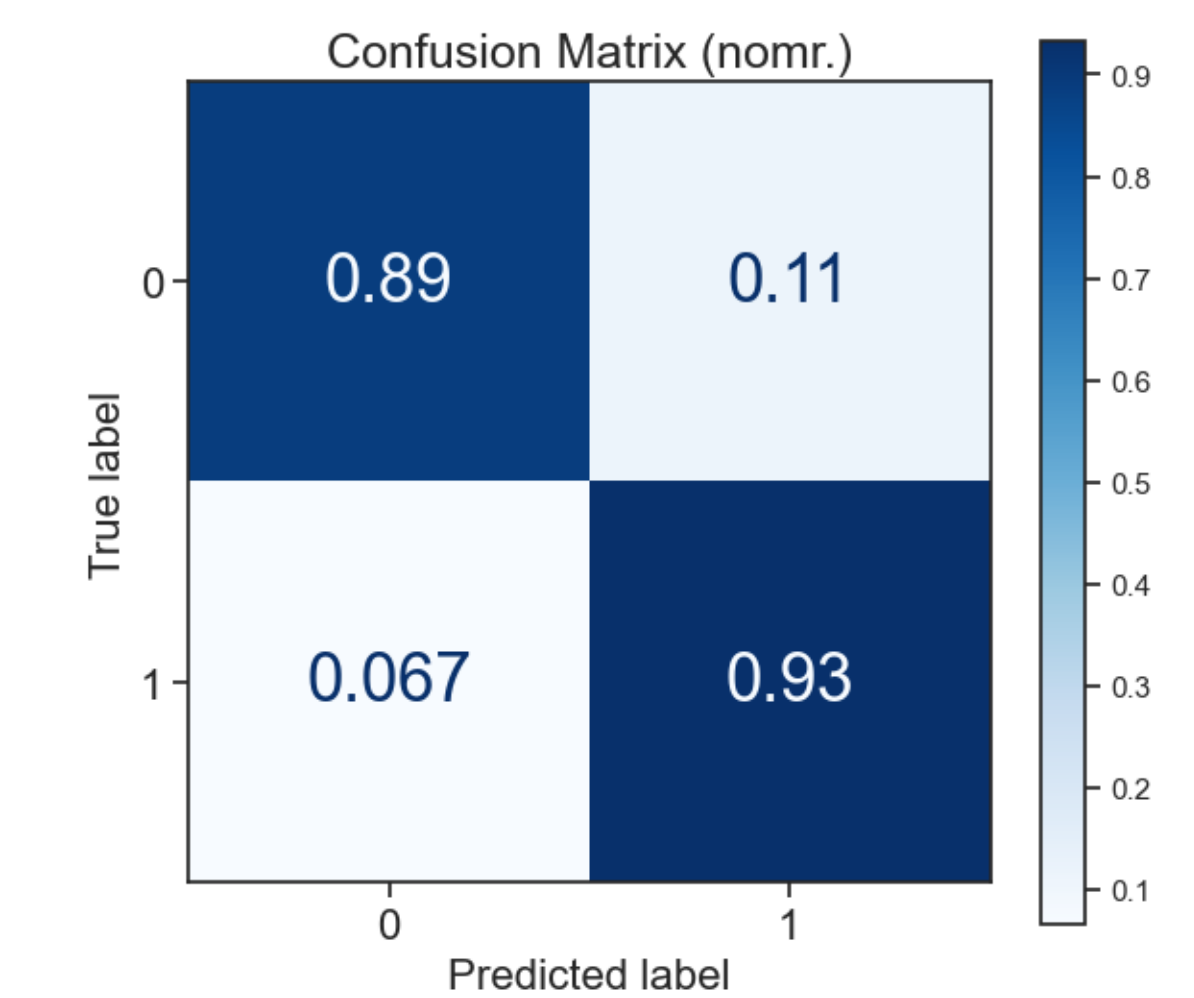
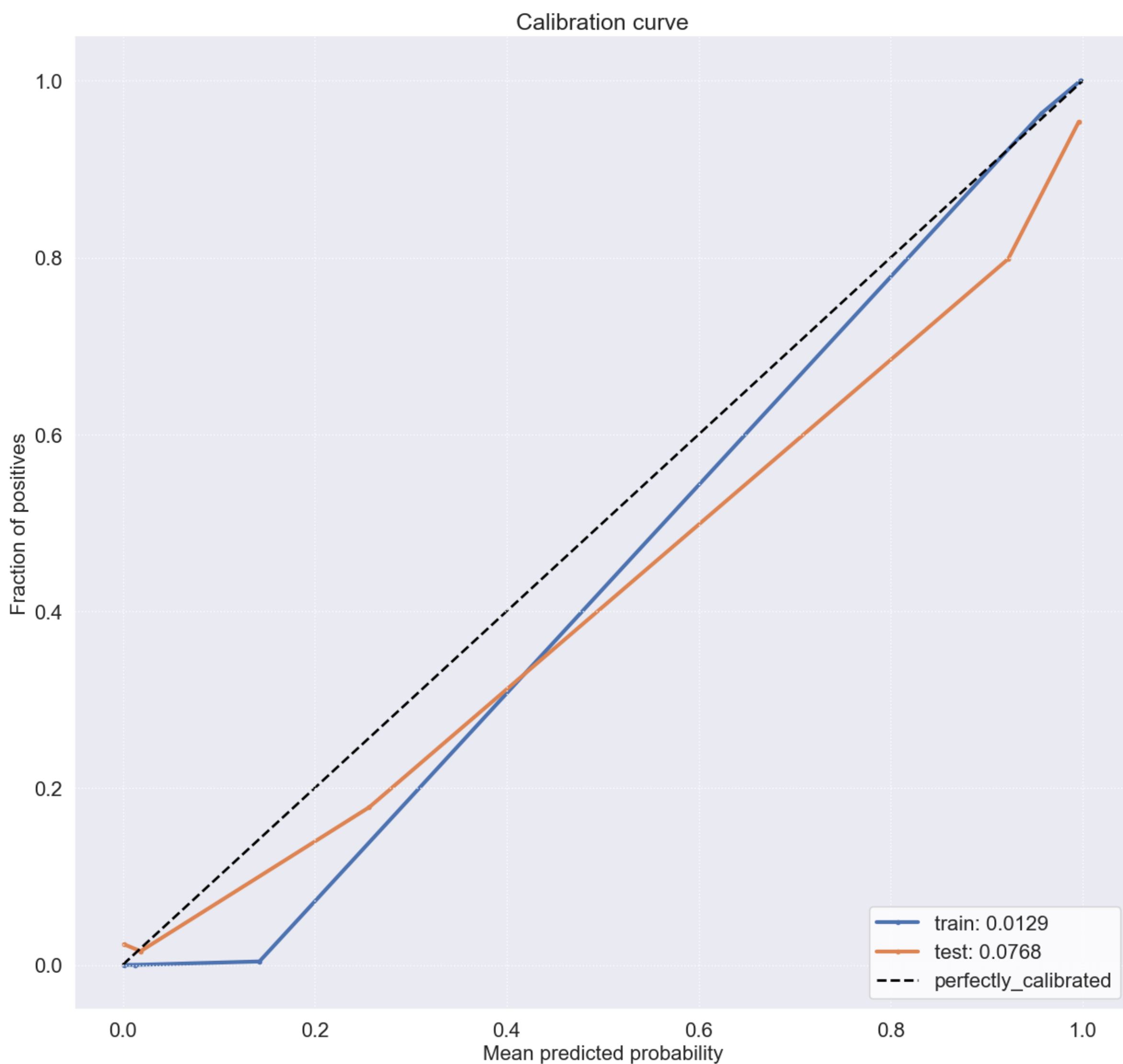
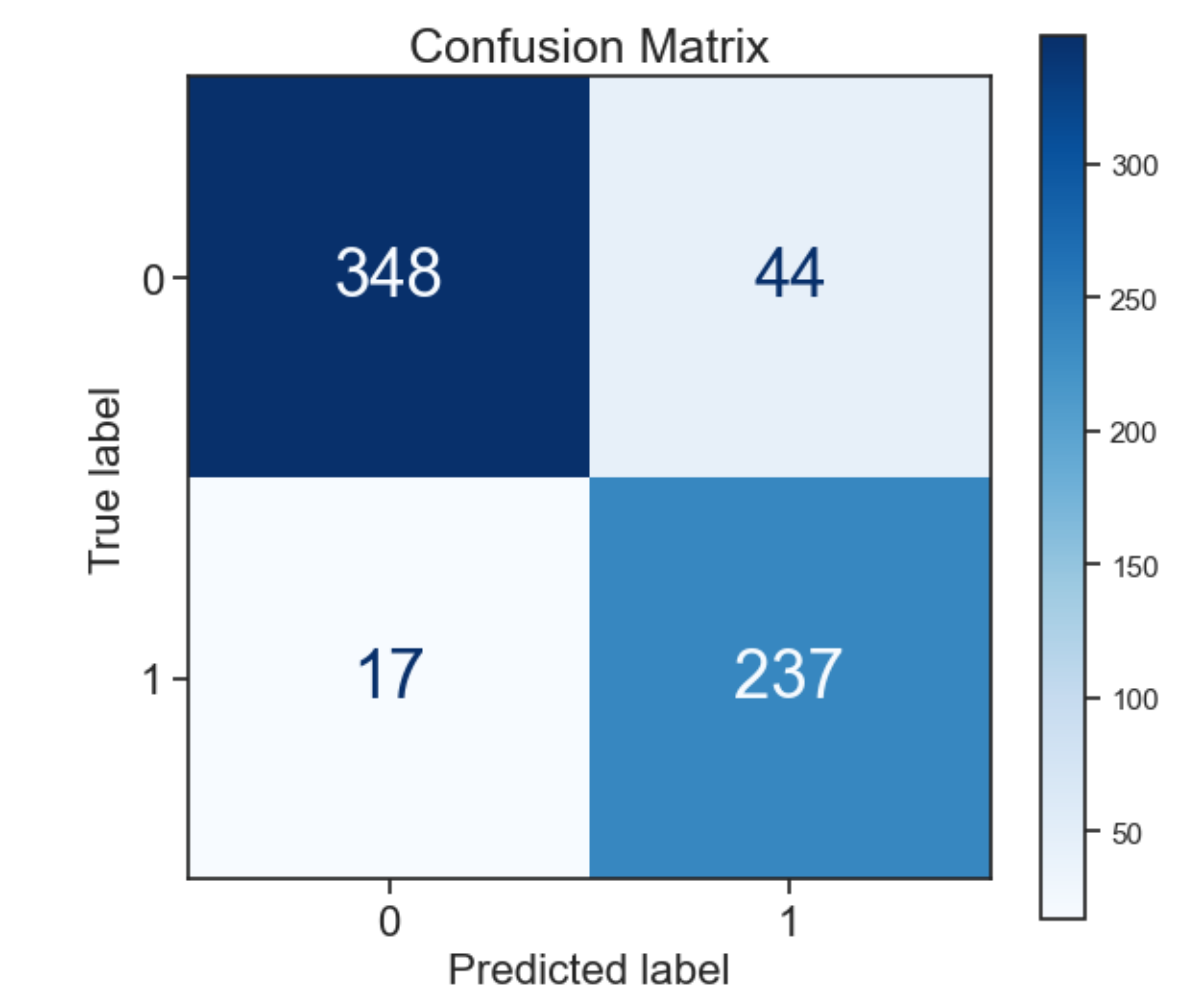


Metric	Train	Test
AUC	0.9995	0.9583
accuracy	0.9841	0.9025
balanced accuracy	0.9859	0.9023
recall_(sens)	0.9941	0.9016
specificity	0.9777	0.9031
precision	0.9664	0.8577
f1_score	0.9842	0.9029

Protein: P31645 - metric: f1

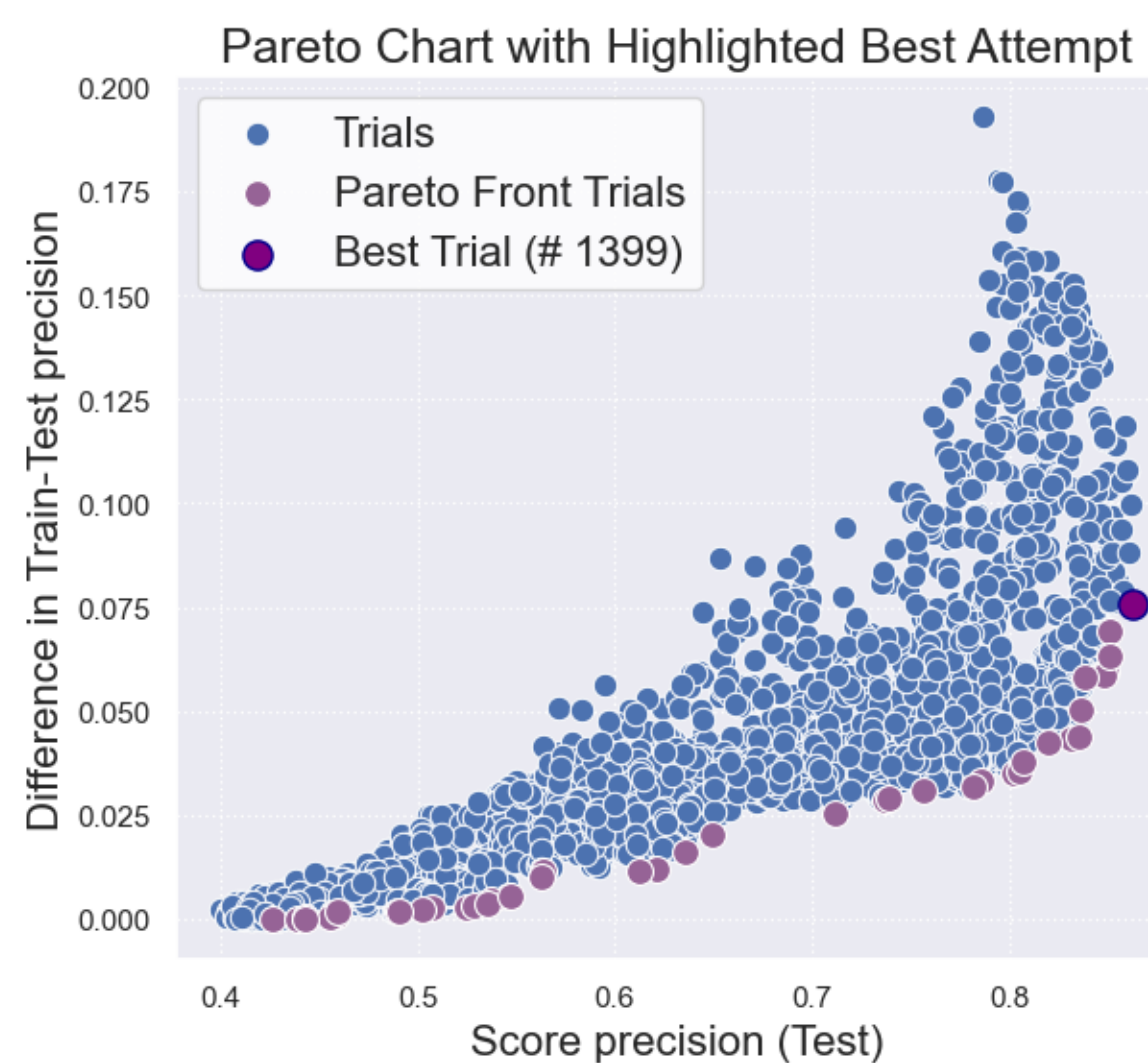
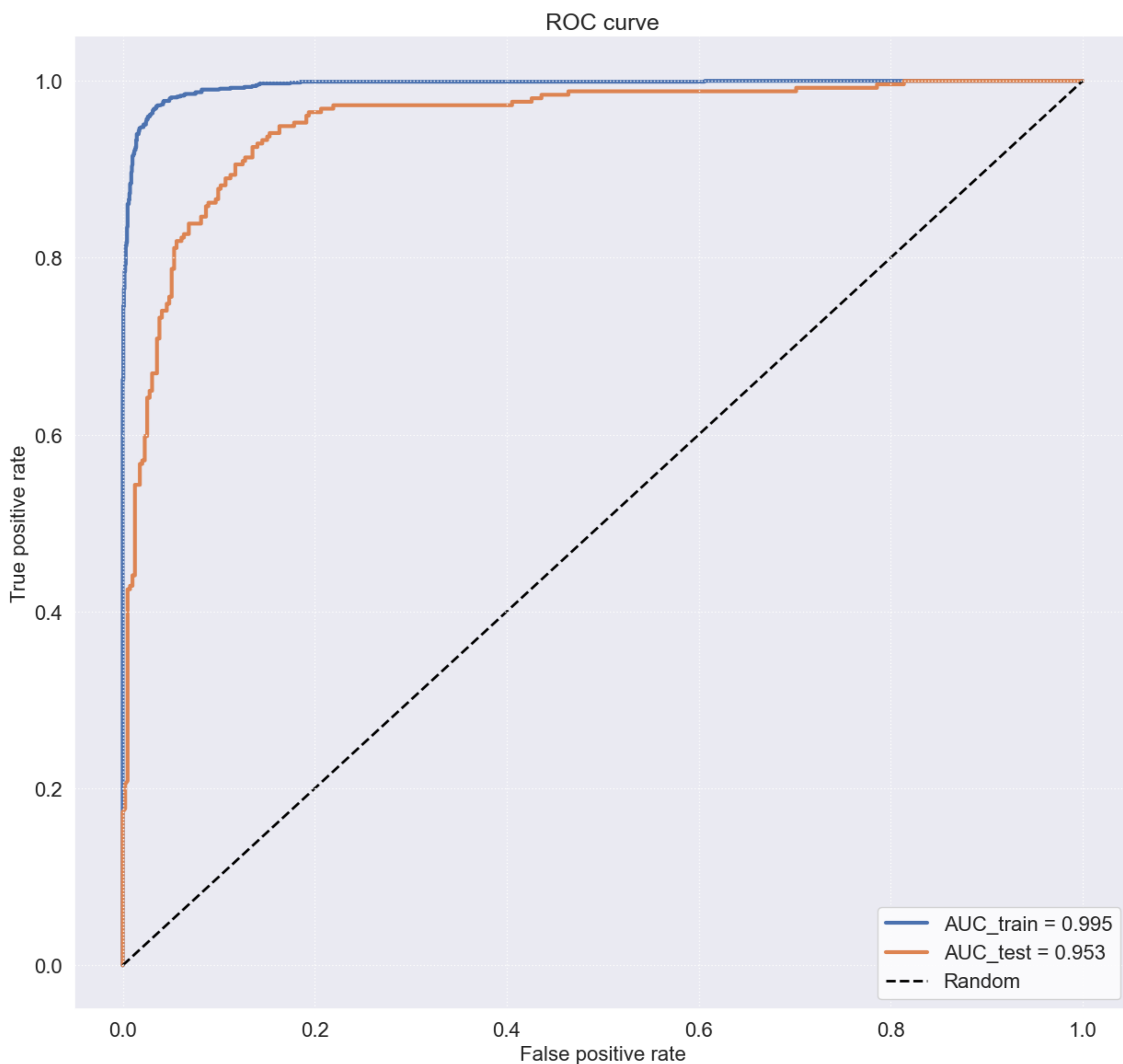
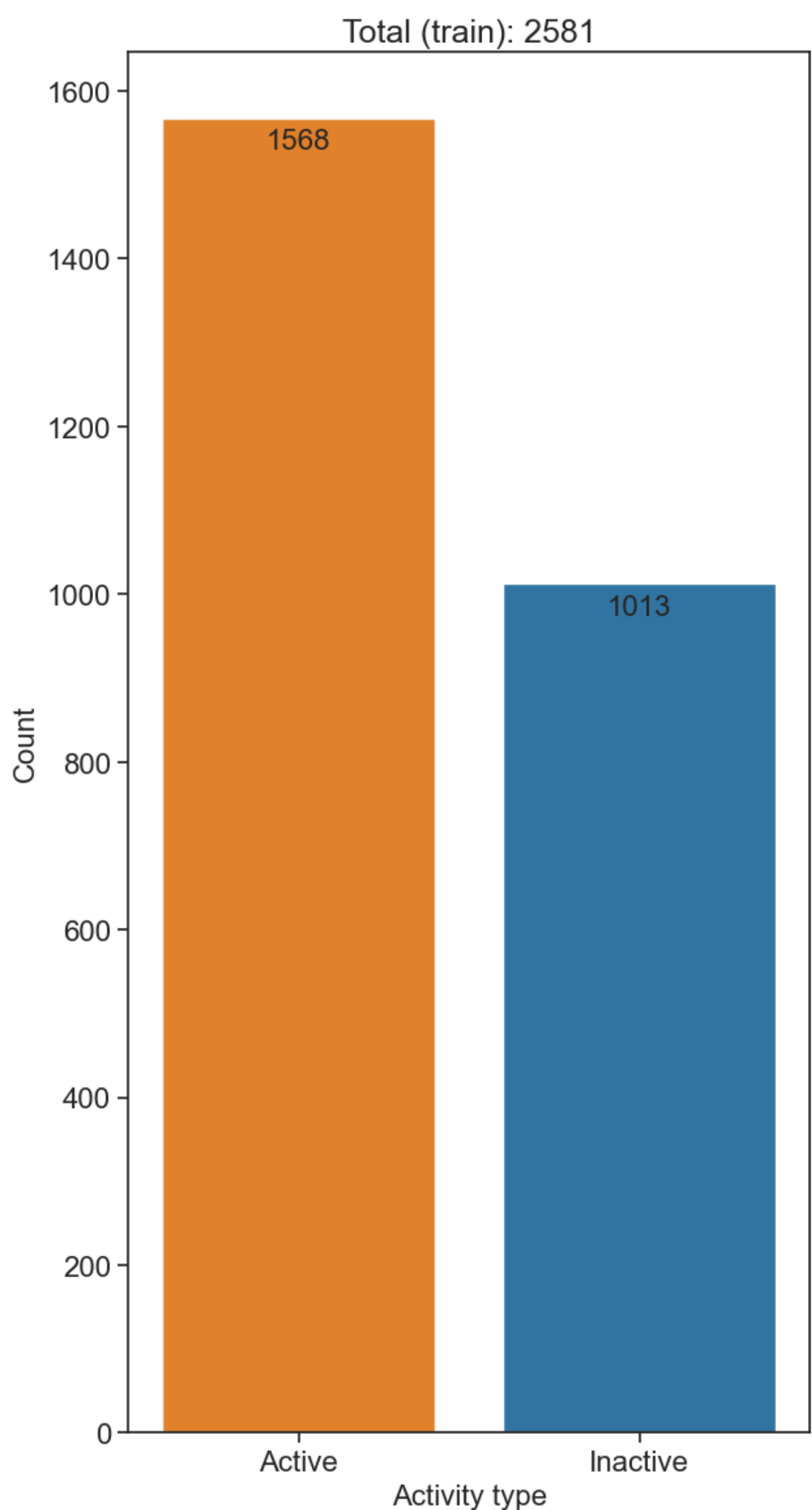


XGBoost Parameters	Value
alpha	2.2783
colsample_bytree	0.5659
gamma	0.4523
lambda	4.9896
learning_rate	0.0599
max_depth	9.0
min_child_weight	1.0
n_estimators	763.0
reg_alpha	0.514
reg_lambda	0.2206
scale_pos_weight	5.131
subsample	0.6189

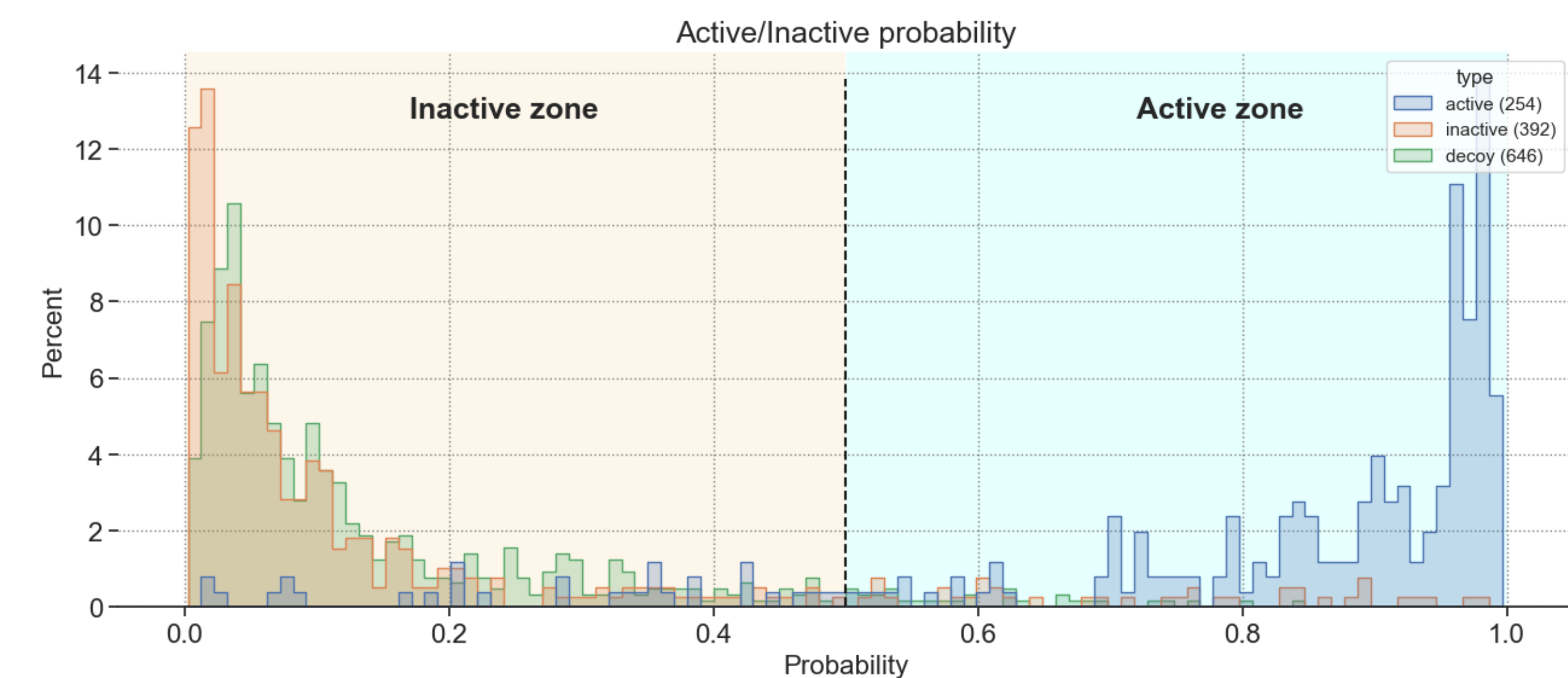
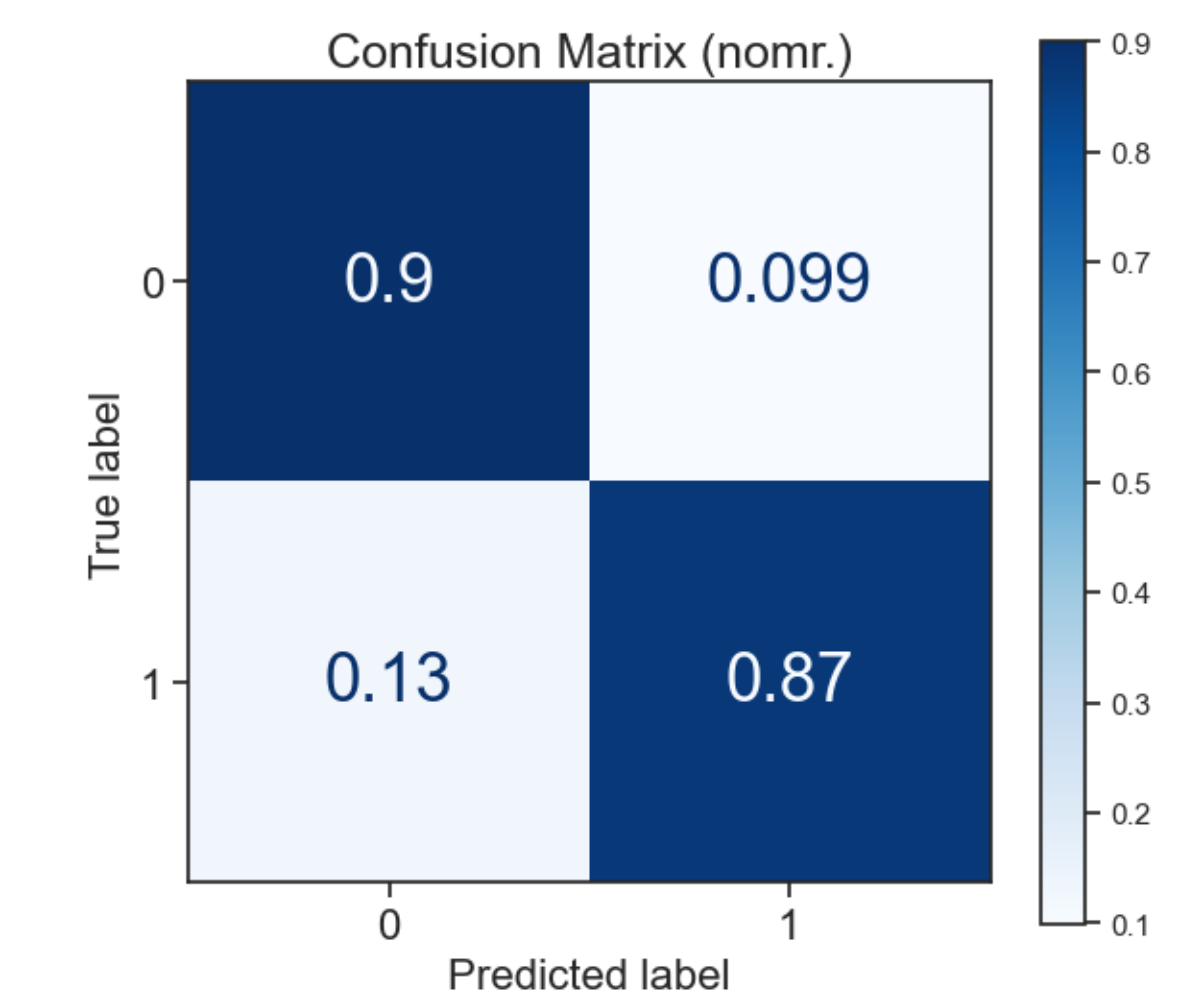
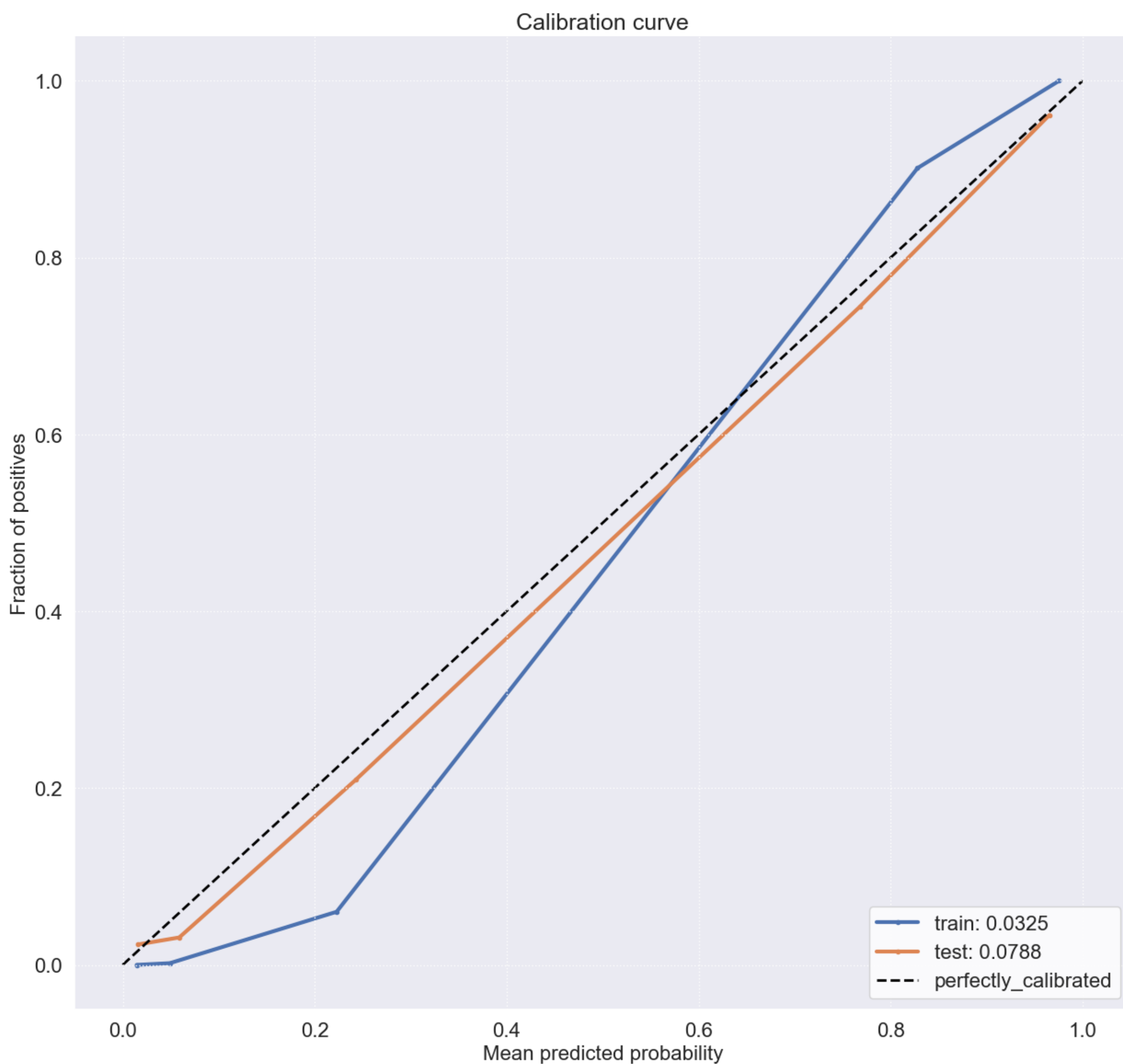
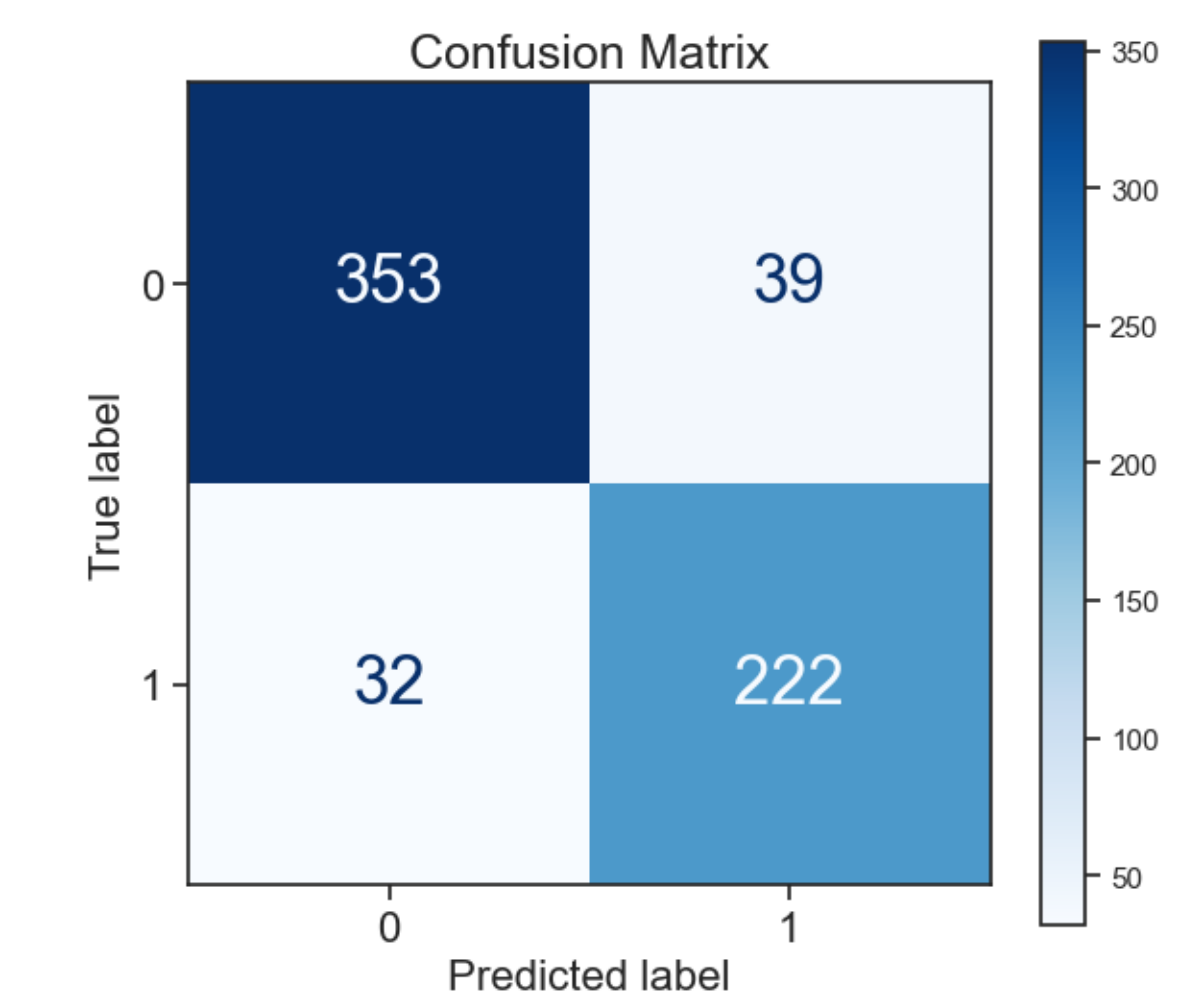


Metric	Train	Test
AUC	0.9999	0.9583
accuracy	0.9841	0.9056
balanced accuracy	0.9869	0.9104
recall_(sens)	1.0	0.9331
specificity	0.9739	0.8878
precision	0.9611	0.8434
f1_score	0.9842	0.9063

Protein: P31645 - metric: precision

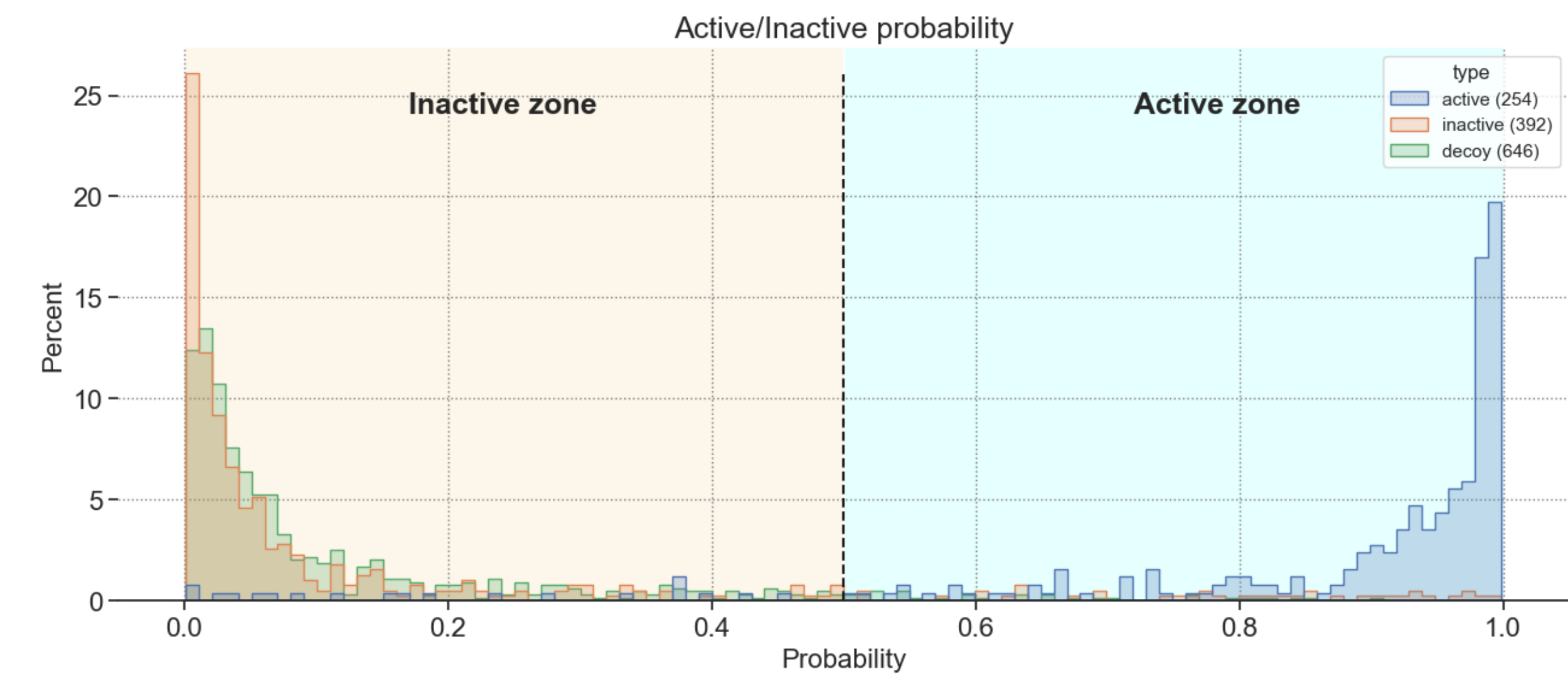
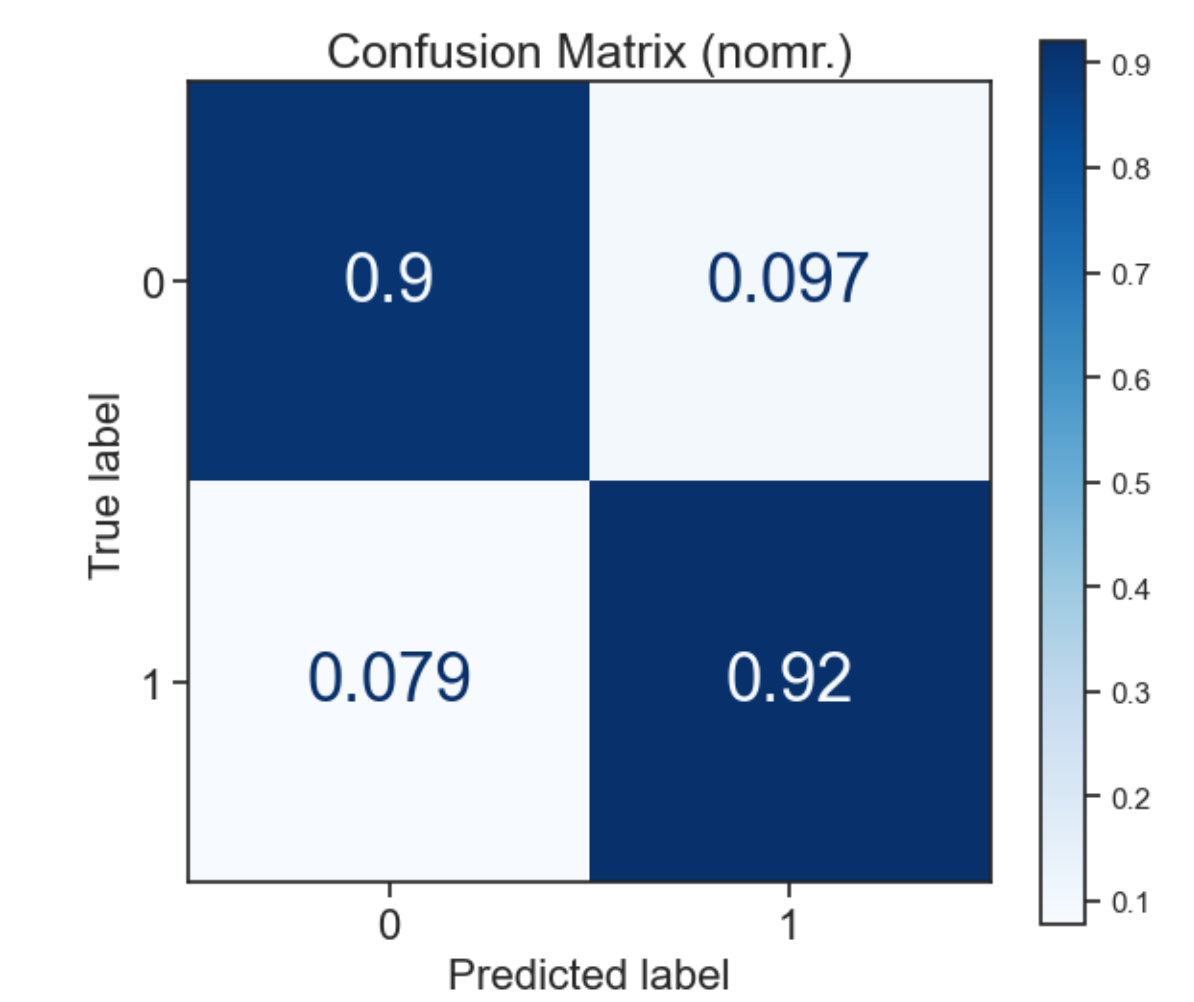
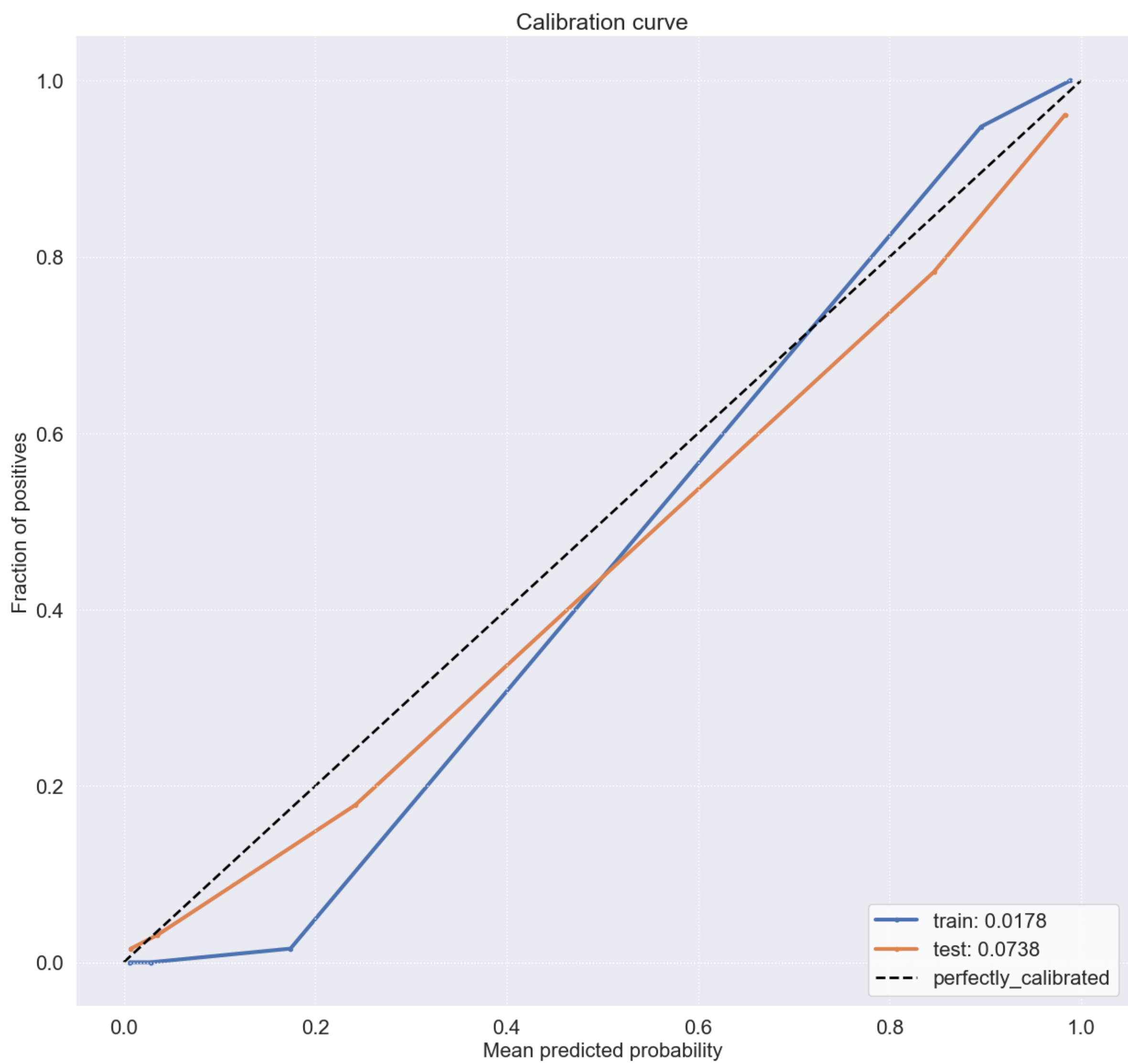
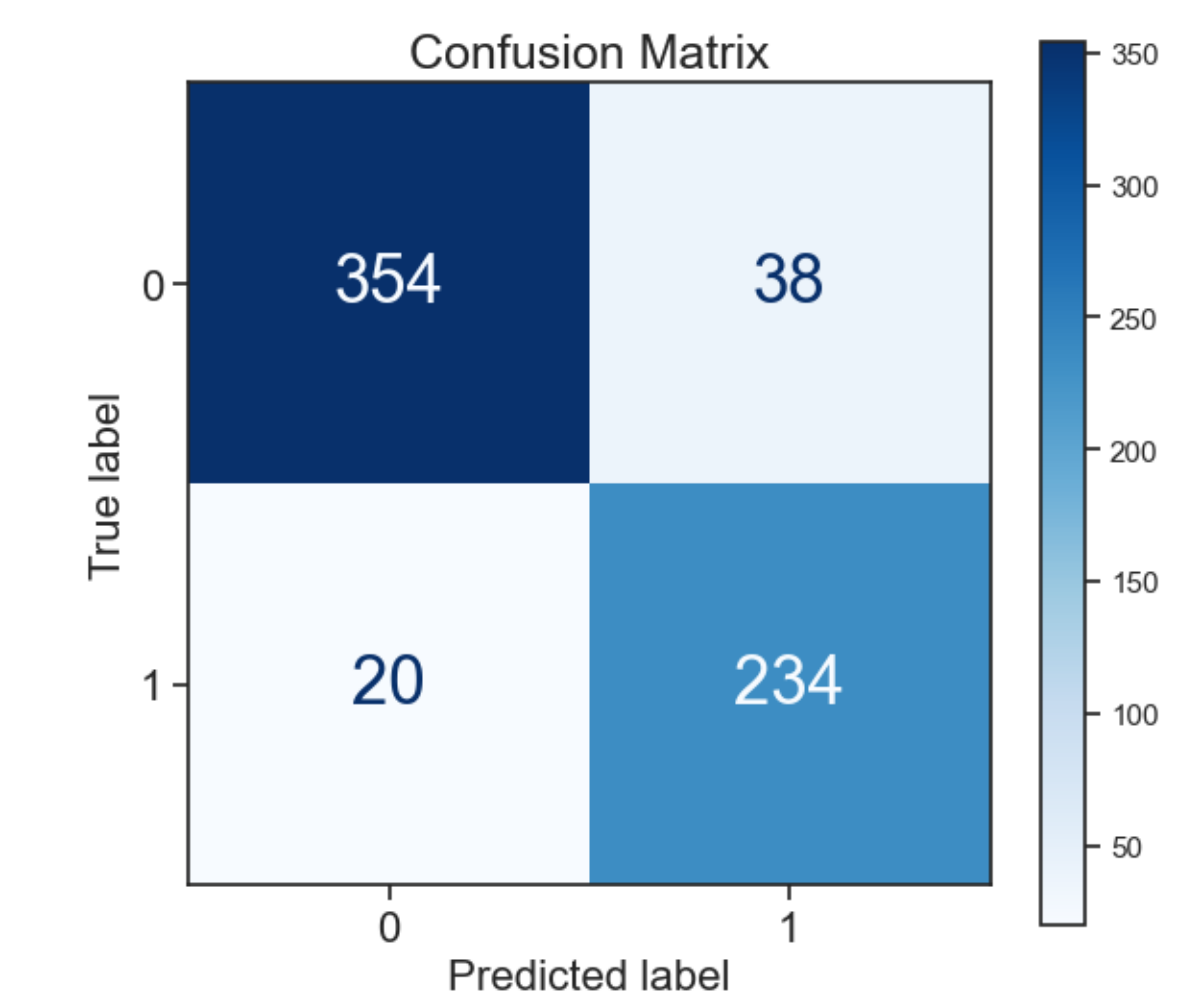
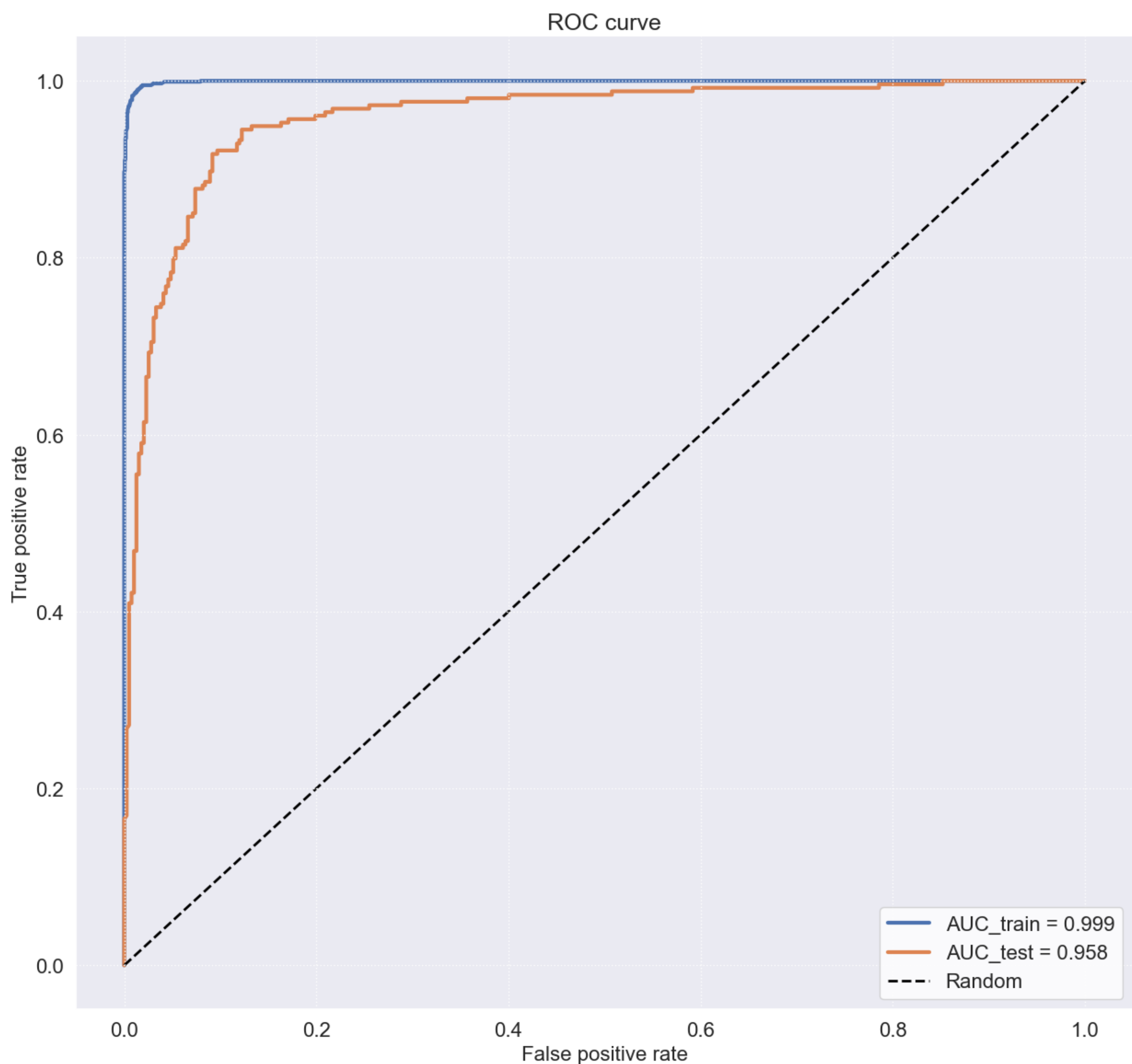
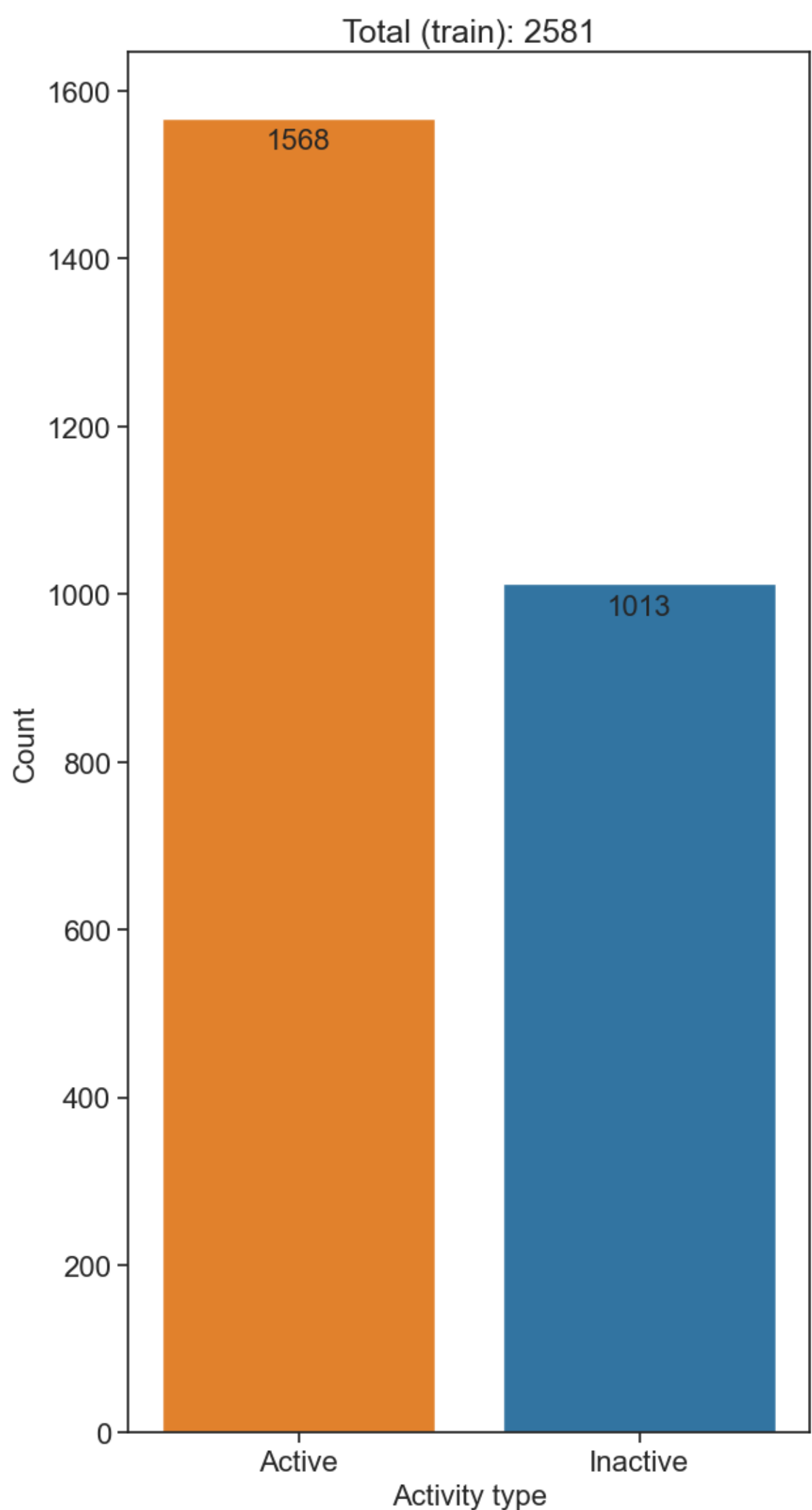


XGBoost Parameters	Value
alpha	2.0954
colsample_bytree	0.6989
gamma	0.3671
lambda	3.3593
learning_rate	0.0204
max_depth	10.0
min_child_weight	3.0
n_estimators	604.0
reg_alpha	0.196
reg_lambda	0.2809
scale_pos_weight	1.6438
subsample	0.8528



Metric	Train	Test
AUC	0.9951	0.9529
accuracy	0.964	0.8901
balanced accuracy	0.9663	0.8873
recall_(sens)	0.9773	0.874
specificity	0.9554	0.9005
precision	0.934	0.8506
f1_score	0.9641	0.8903

Protein: P31645 - metric: SoftVotingXGBoostEnsemble



Metric	Train	Test
AUC	0.9994	0.9581
accuracy	0.9837	0.9102
balanced accuracy	0.9857	0.9122
recall_(sens)	0.9951	0.9213
specificity	0.9764	0.9031
precision	0.9646	0.8603
f1_score	0.9838	0.9107