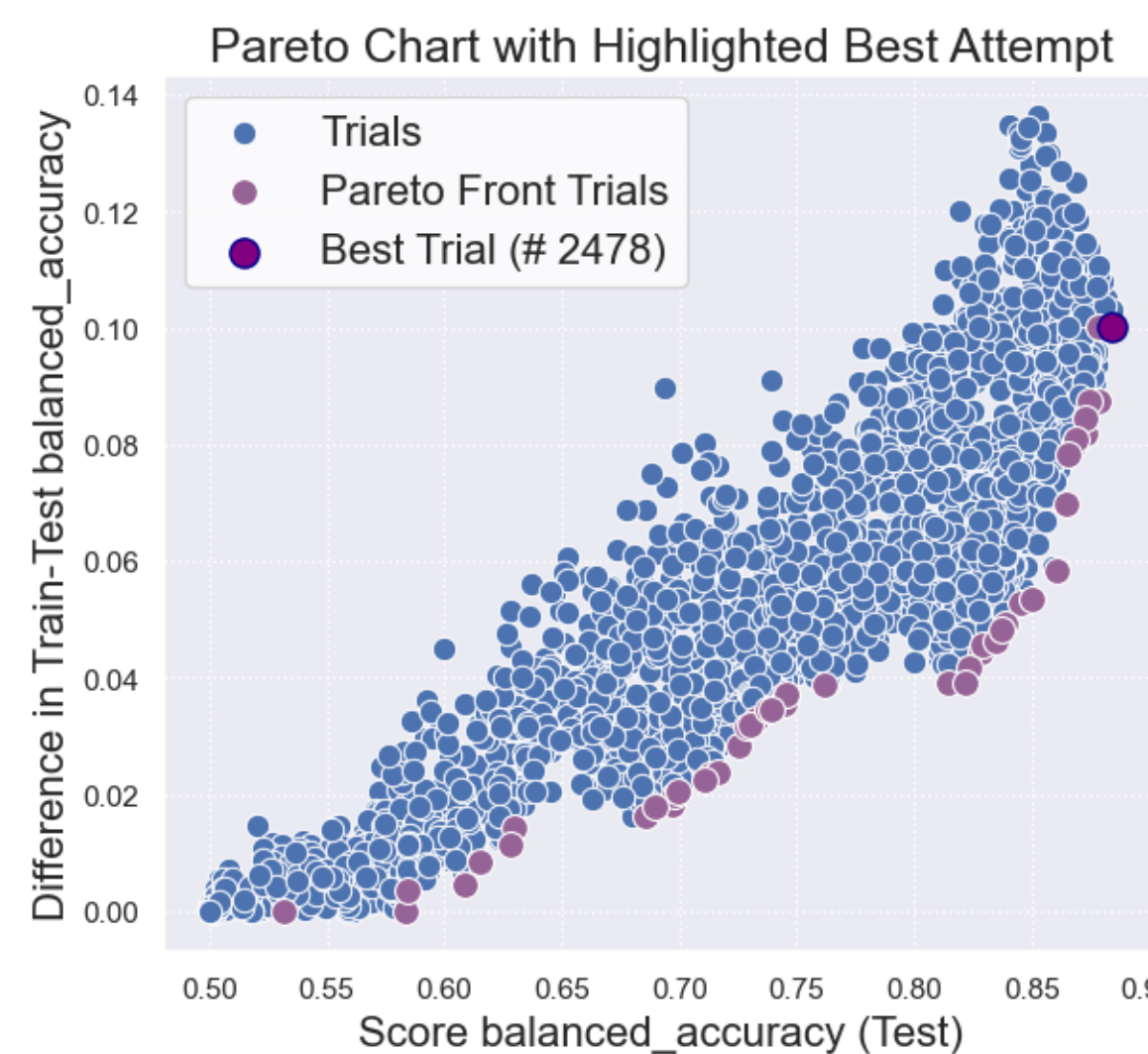
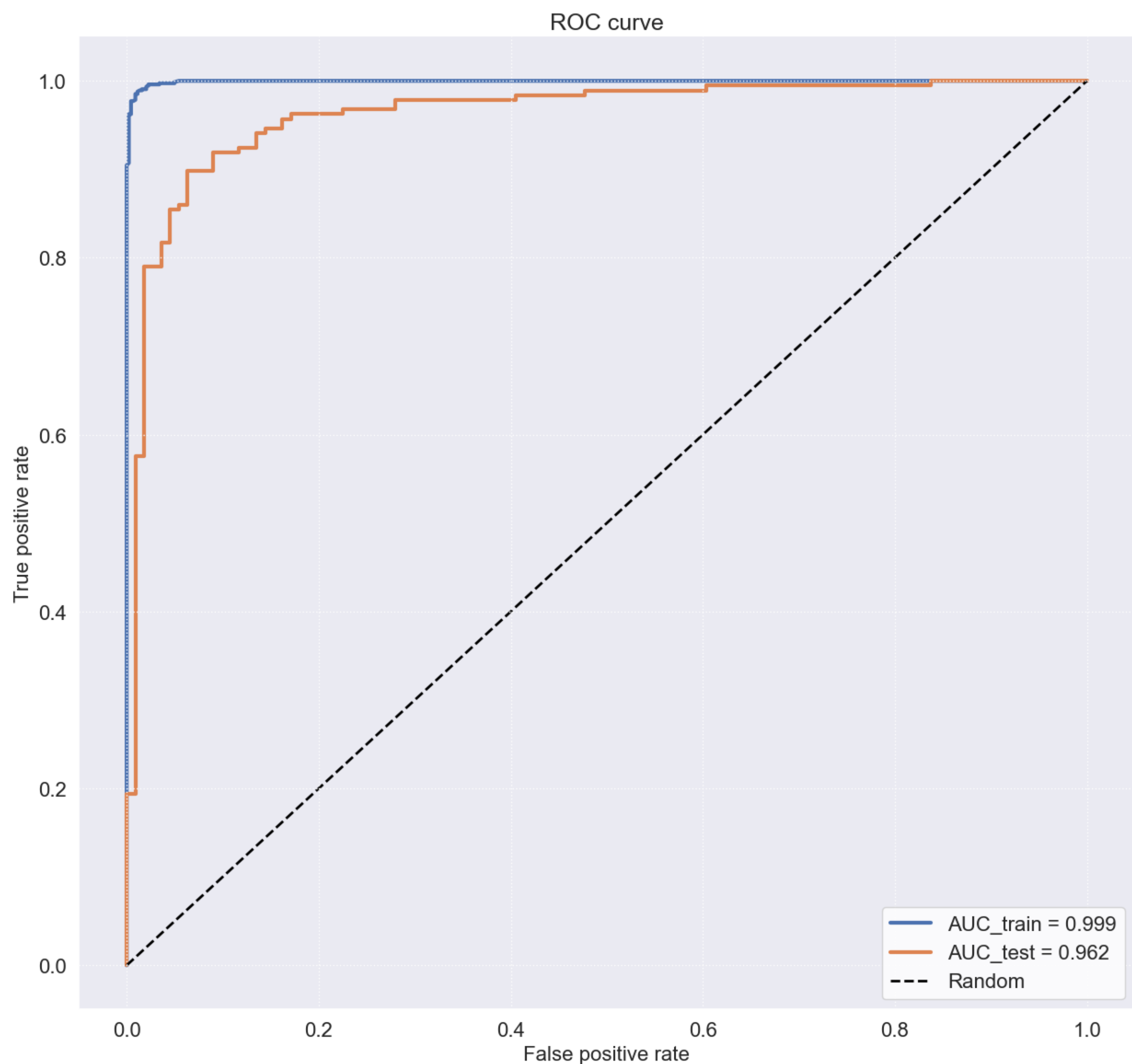
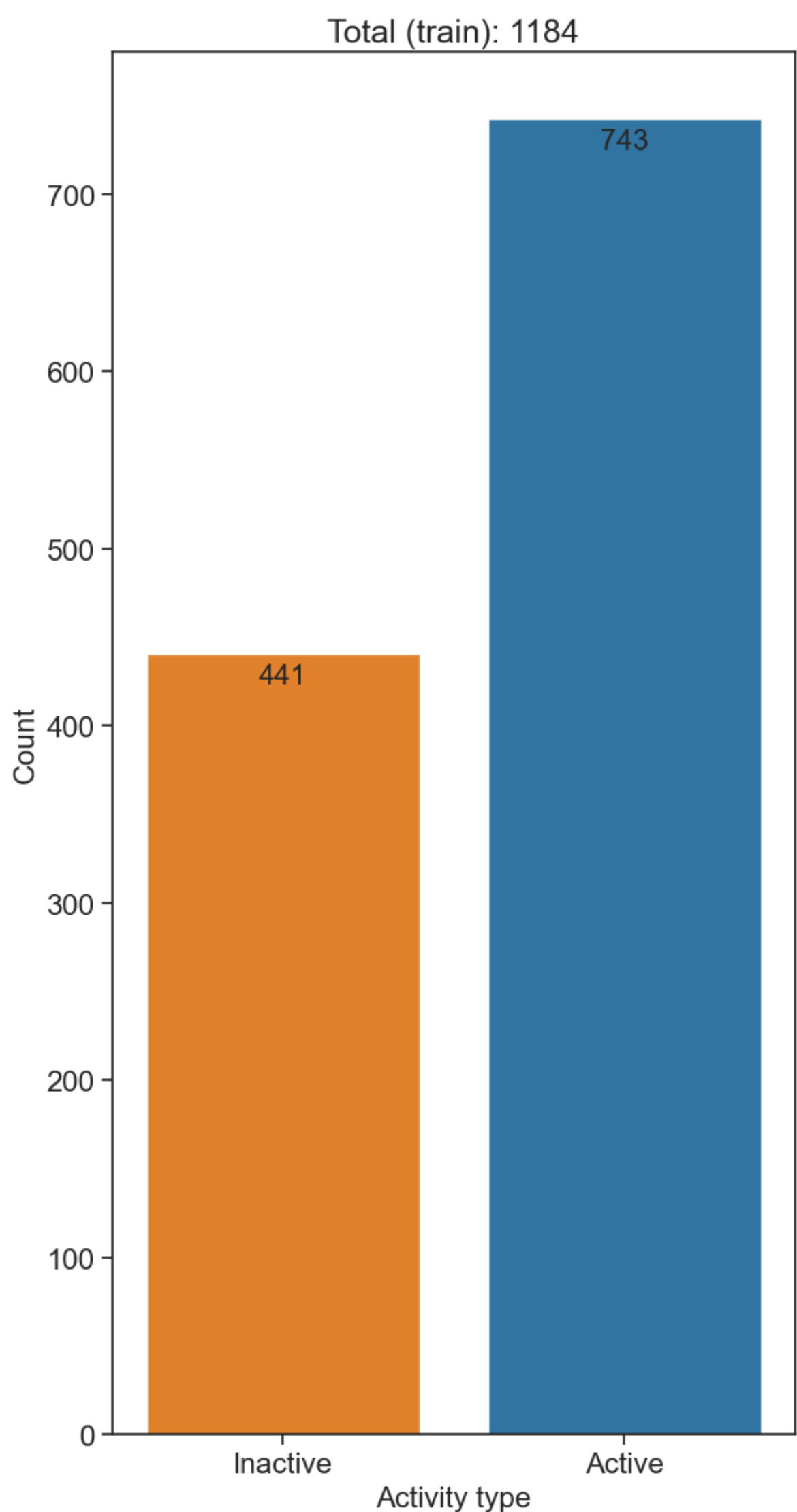
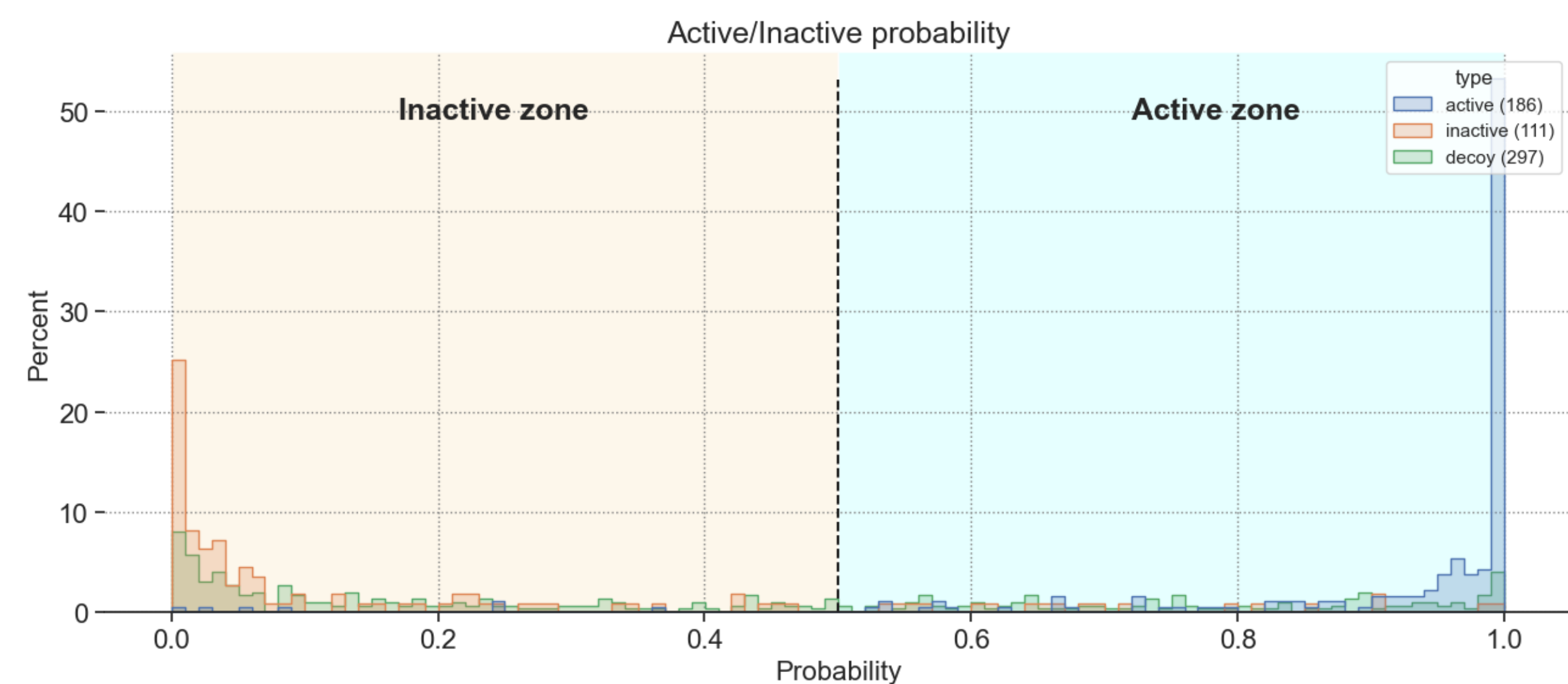
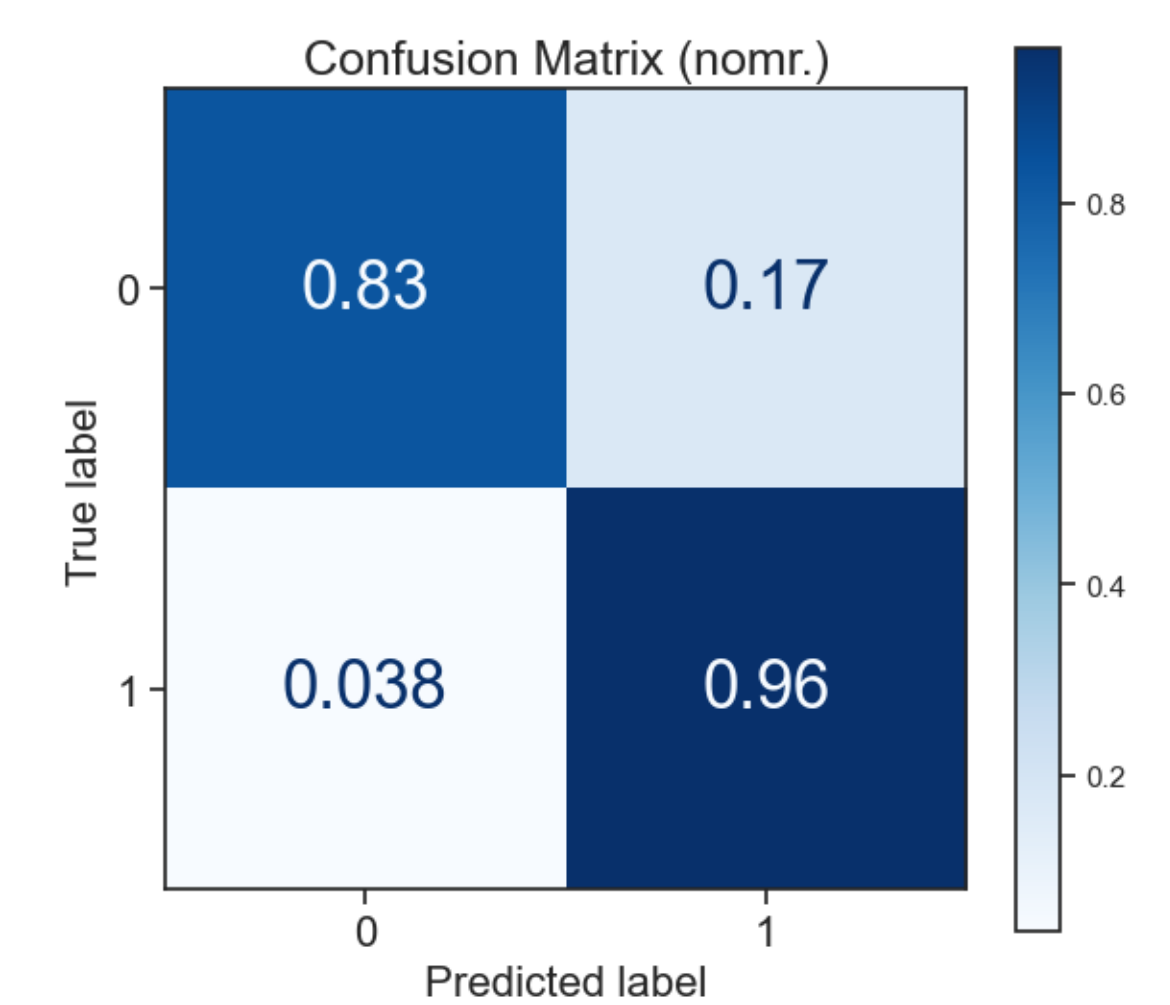
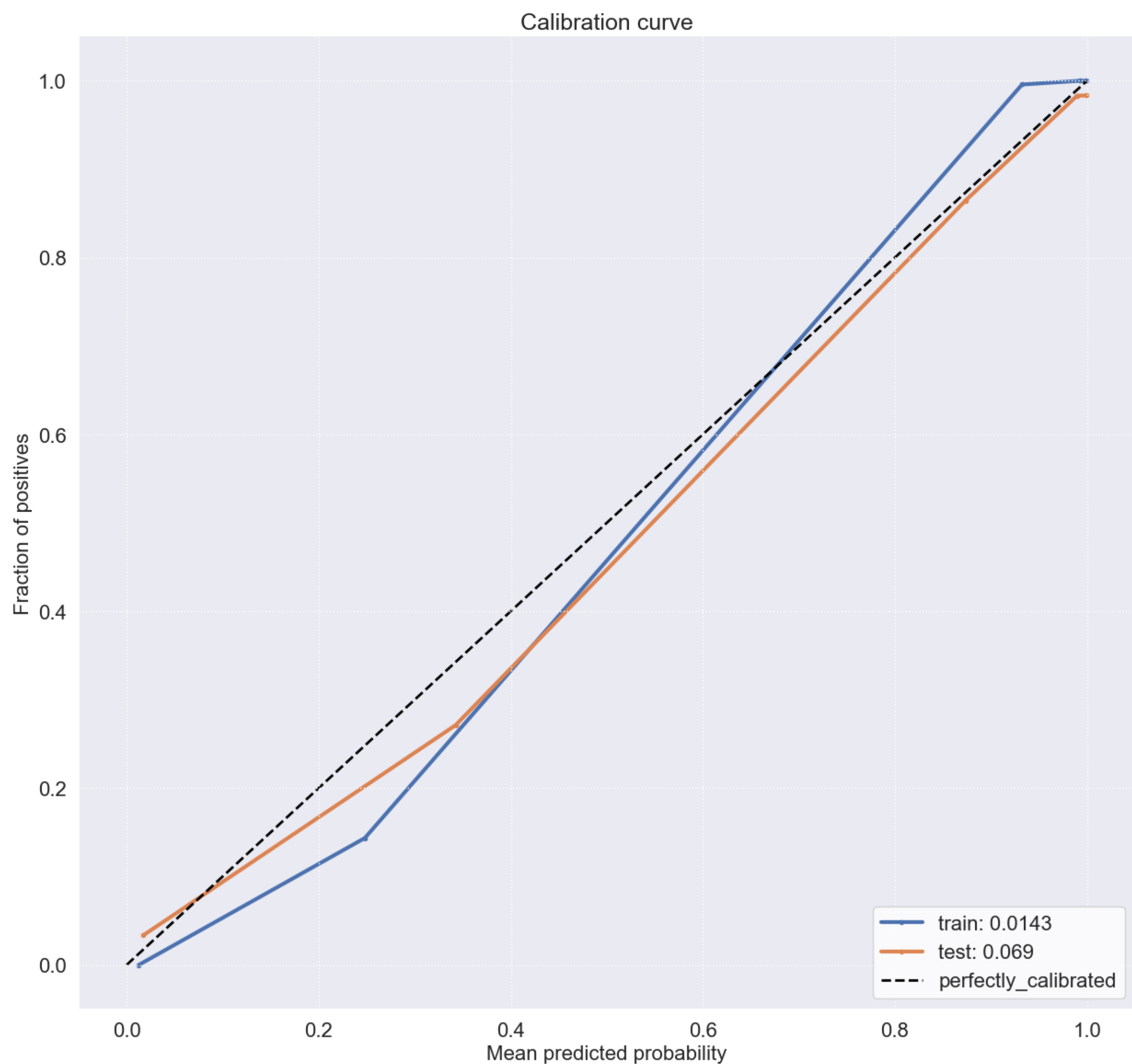
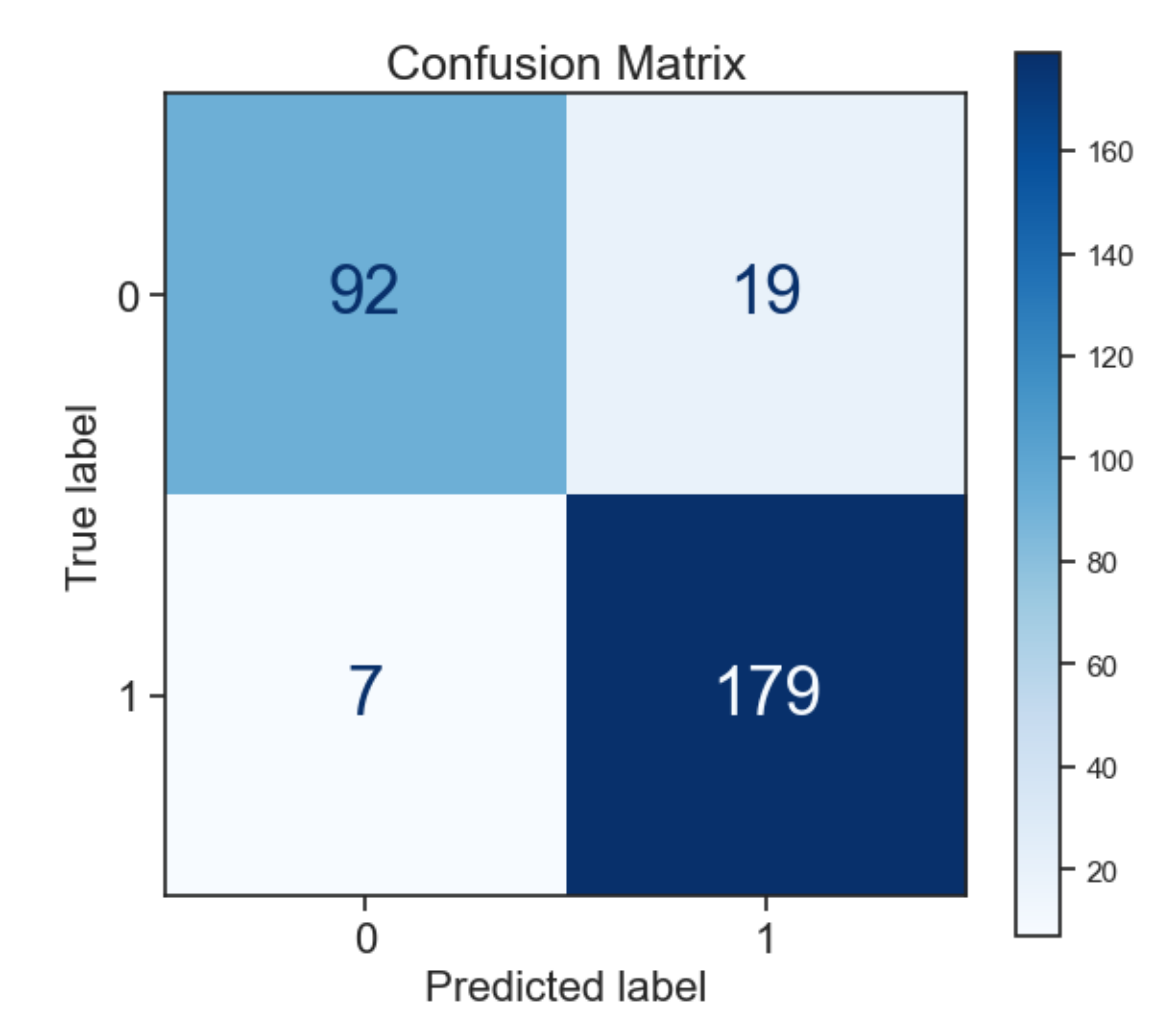


Protein: P08172 - metric: balanced\_accuracy



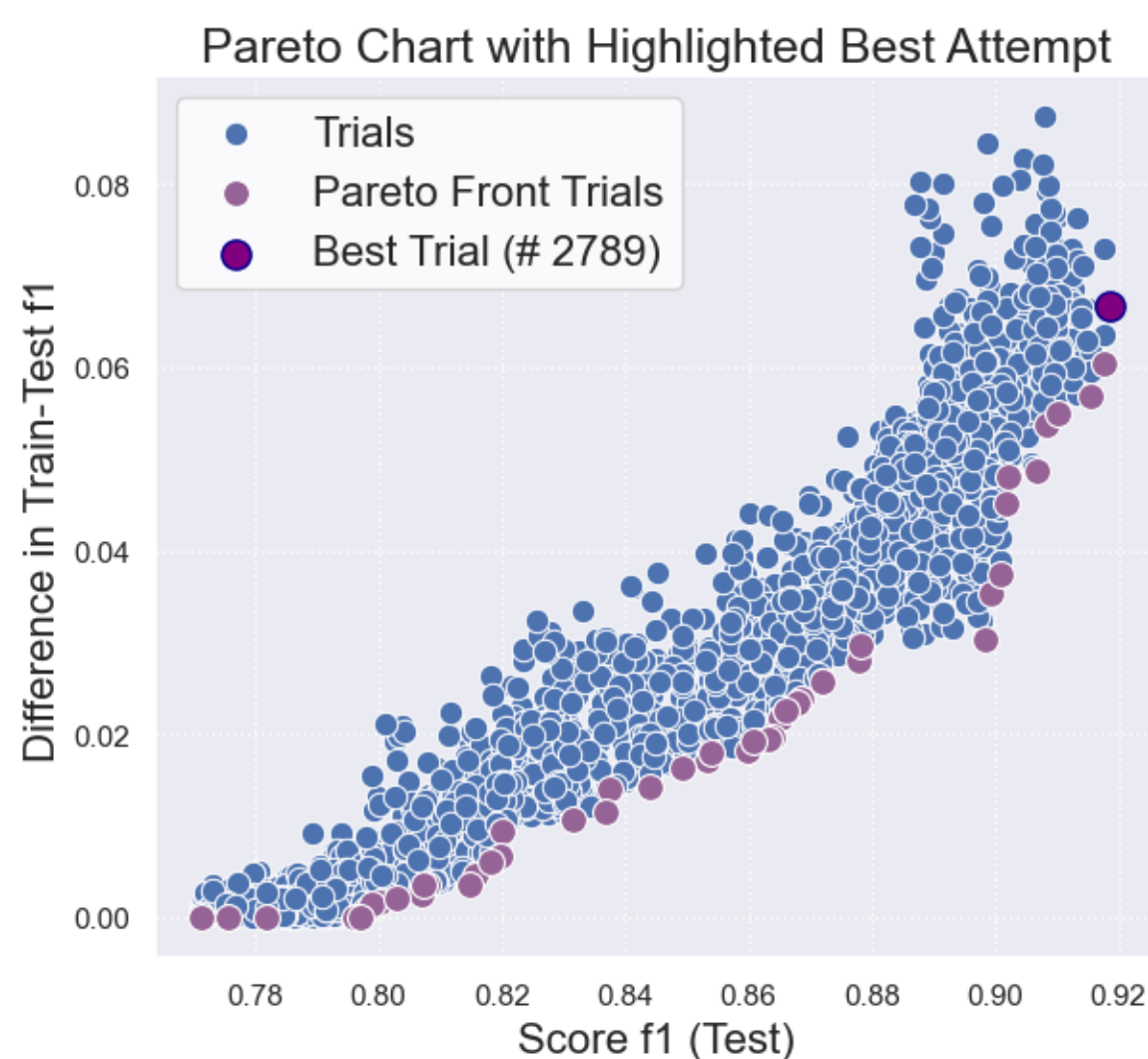
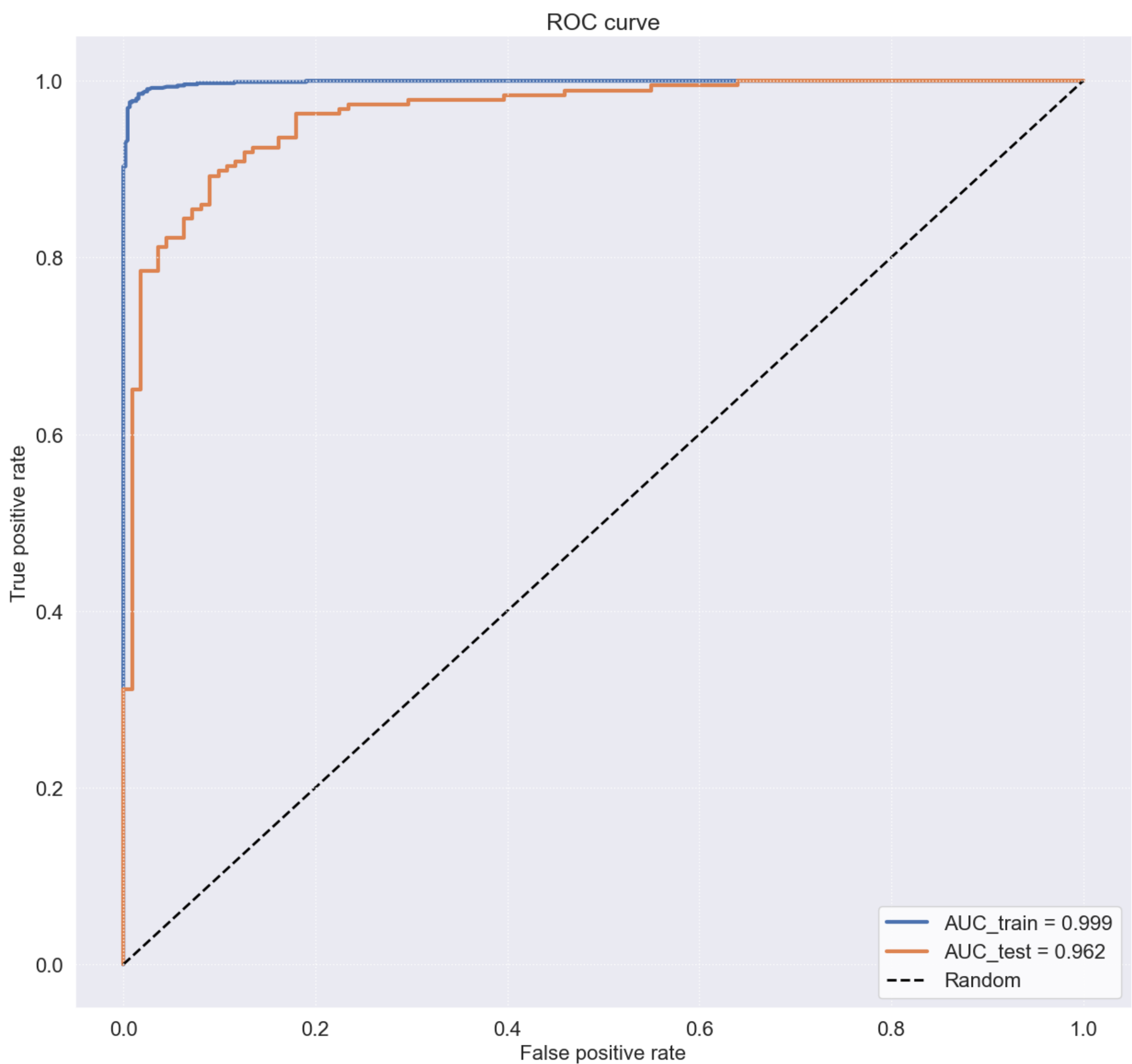
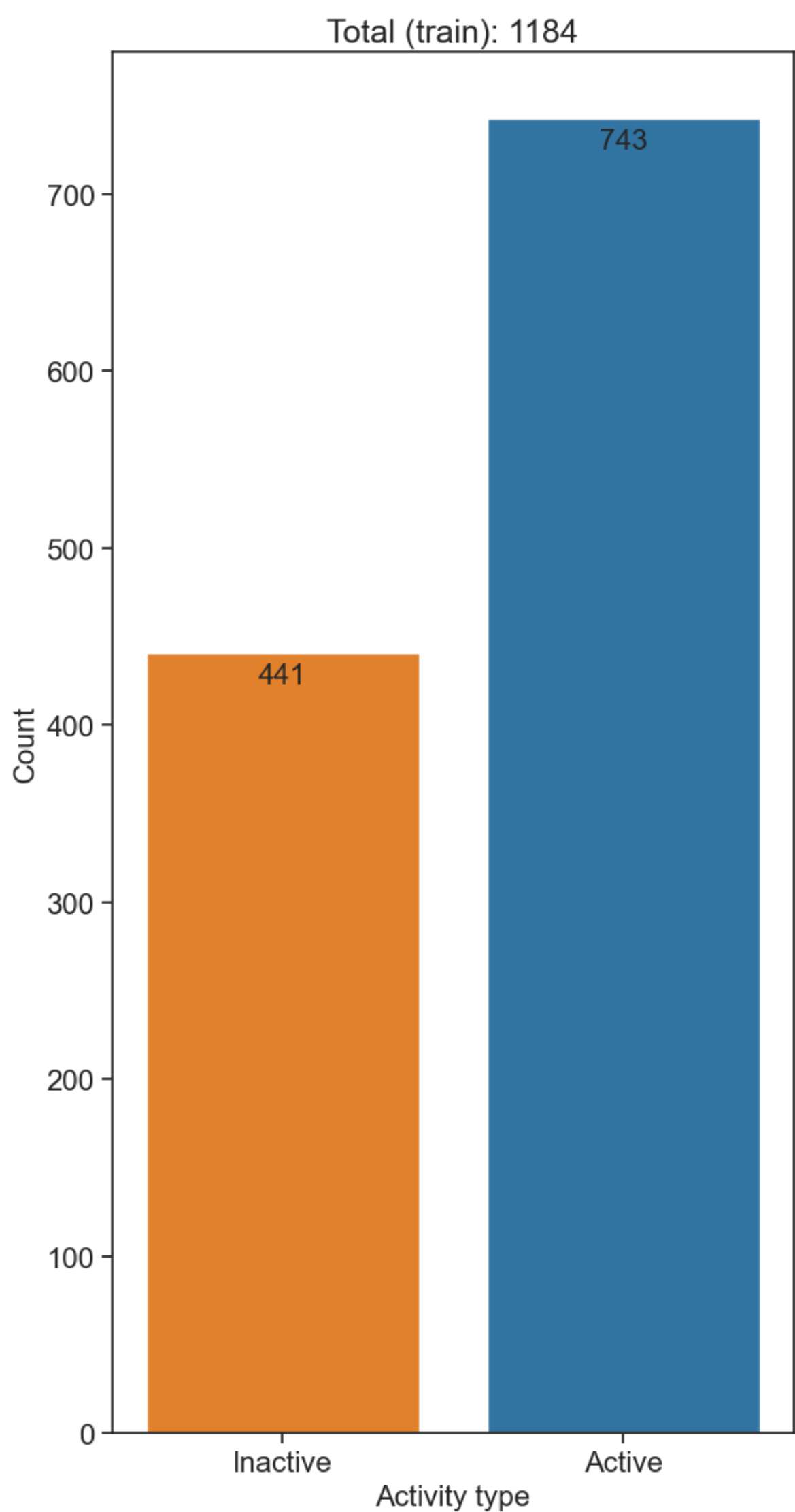
XGBoost Parameters	Value
alpha	0.1883
colsample_bytree	0.6155
gamma	0.0447
lambda	1.7216
learning_rate	0.0918
max_depth	4.0
min_child_weight	2.0
n_estimators	813.0
reg_alpha	0.5241
reg_lambda	0.0037
scale_pos_weight	1.4757
subsample	0.5729



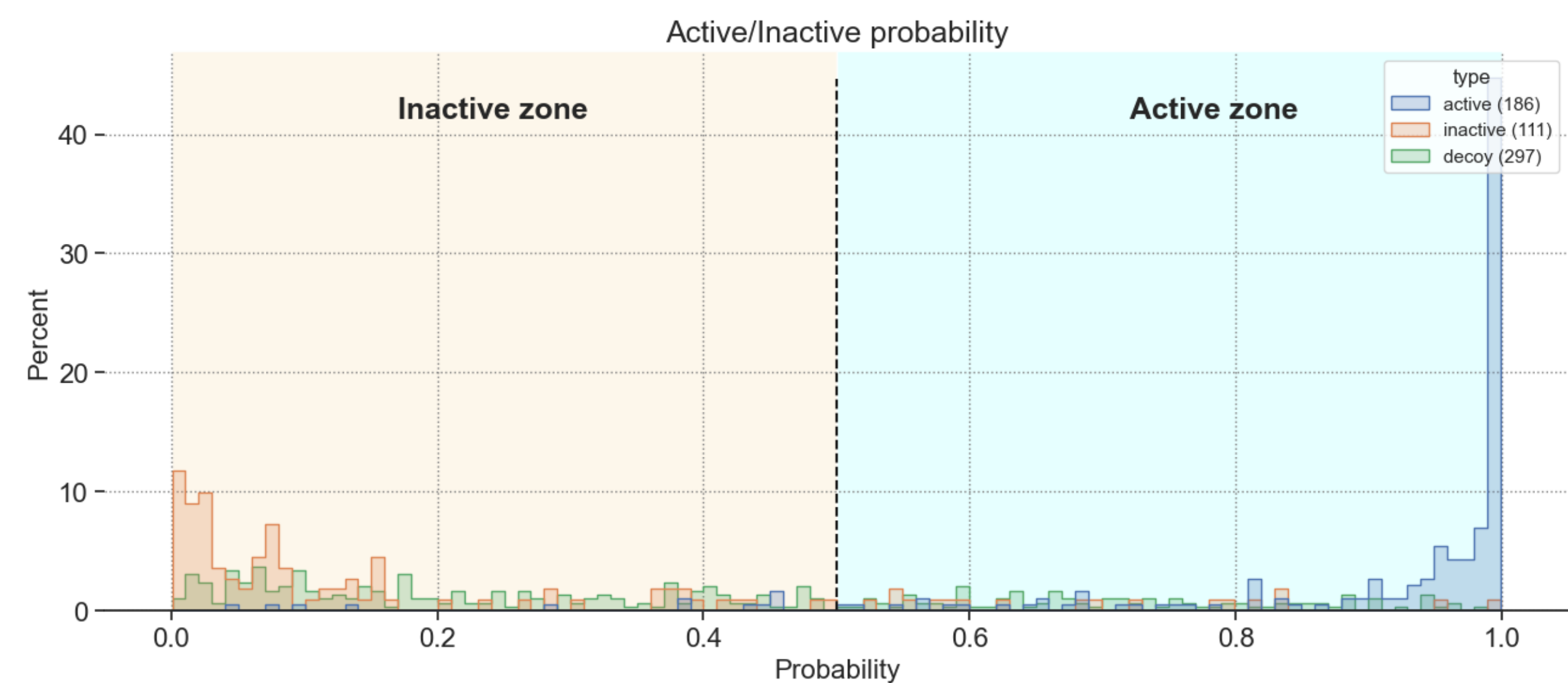
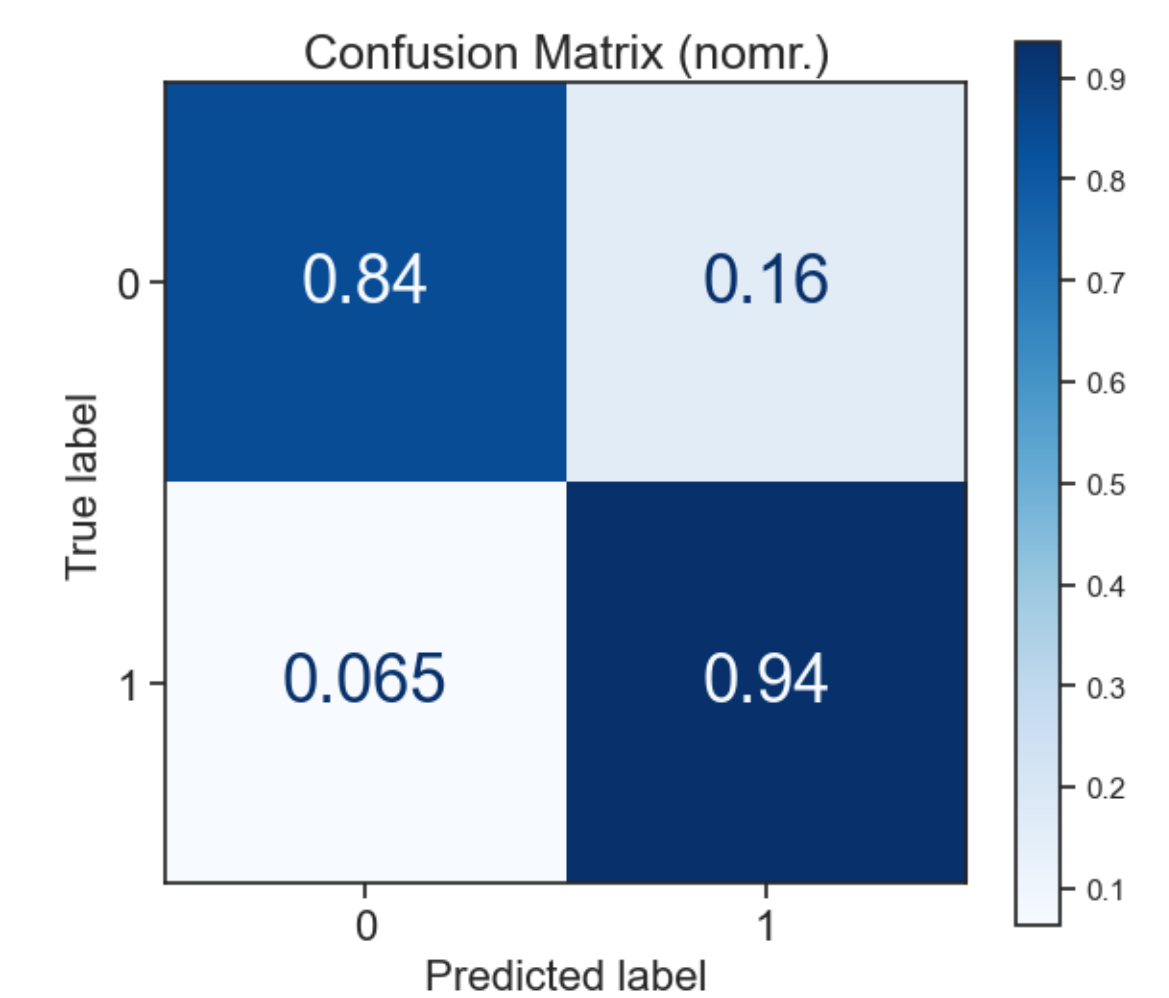
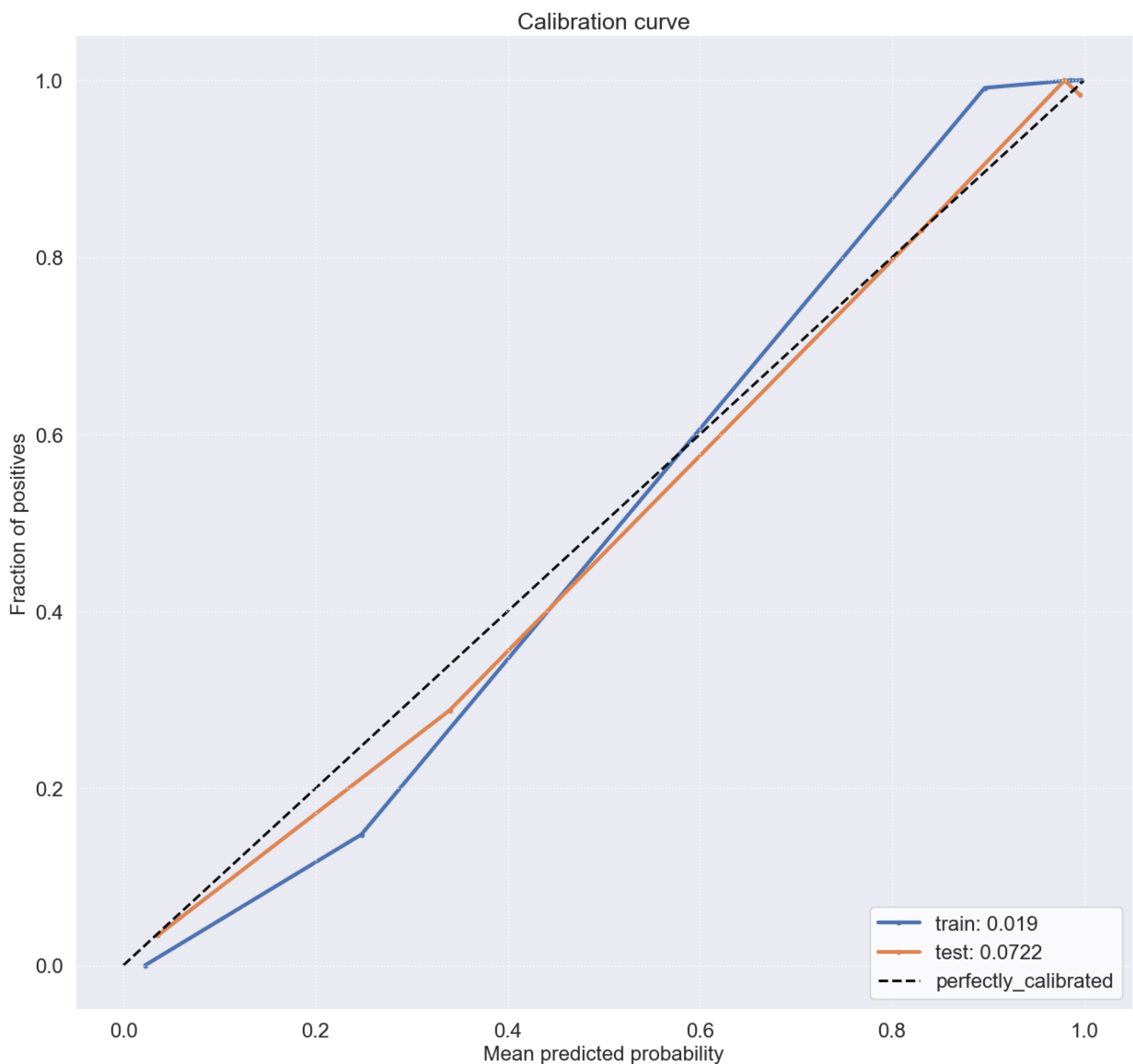
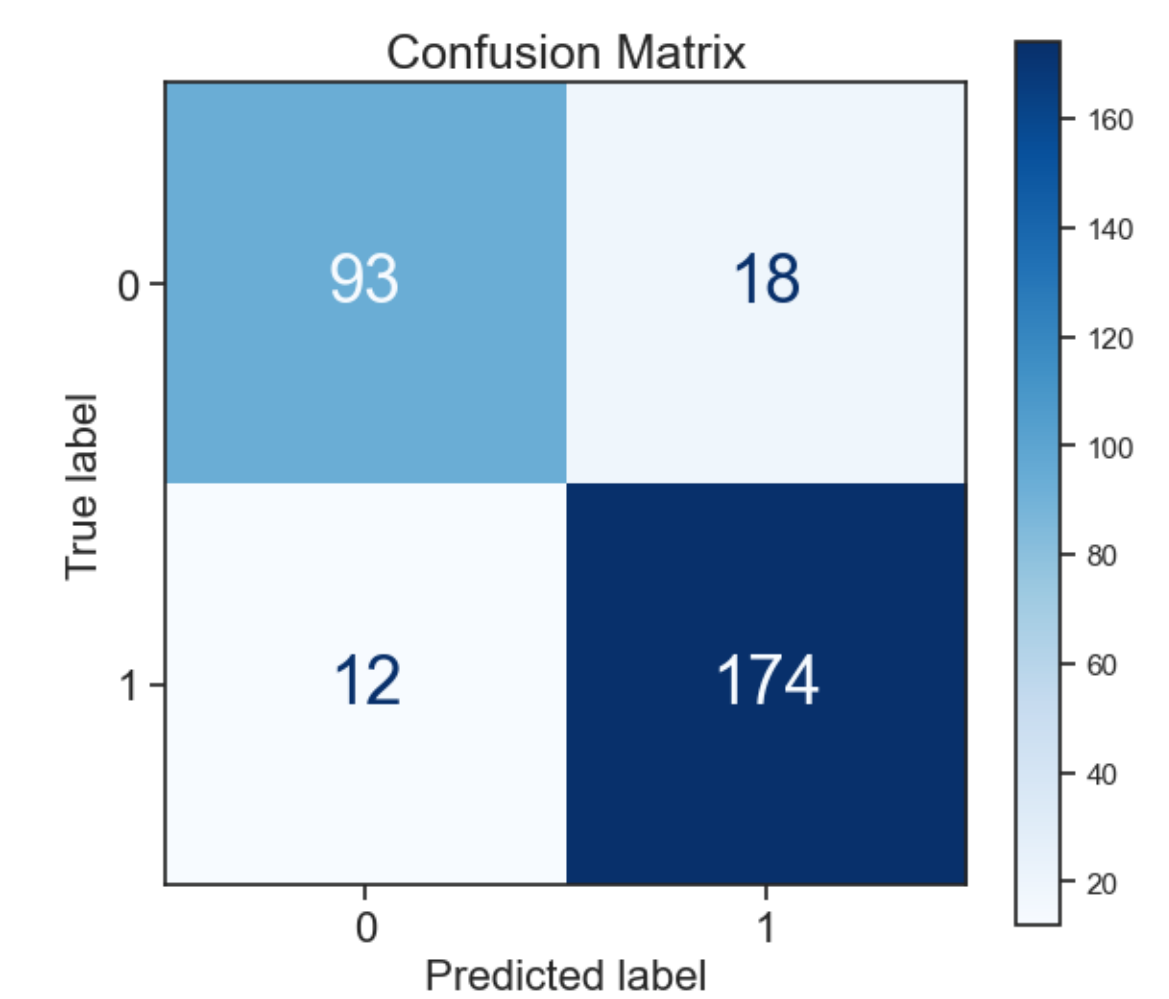
Metric	Train	Test
AUC	0.9994	0.9625
accuracy	0.9873	0.9125
balanced accuracy	0.9844	0.8956
recall_(sens)	0.996	0.9624
specificity	0.9728	0.8288
precision	0.984	0.904
f1_score	0.9873	0.9113



Protein: P08172 - metric: f1



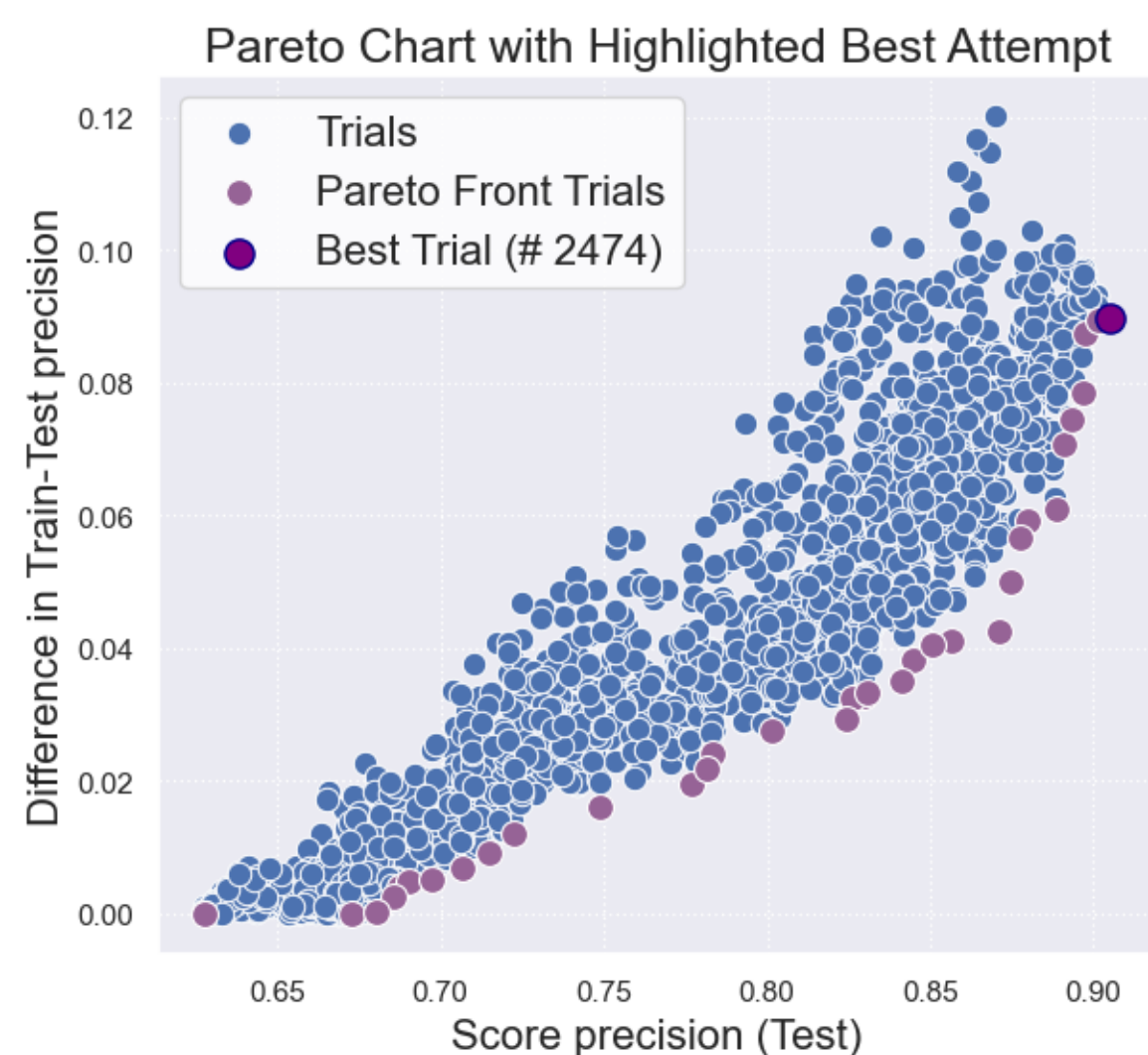
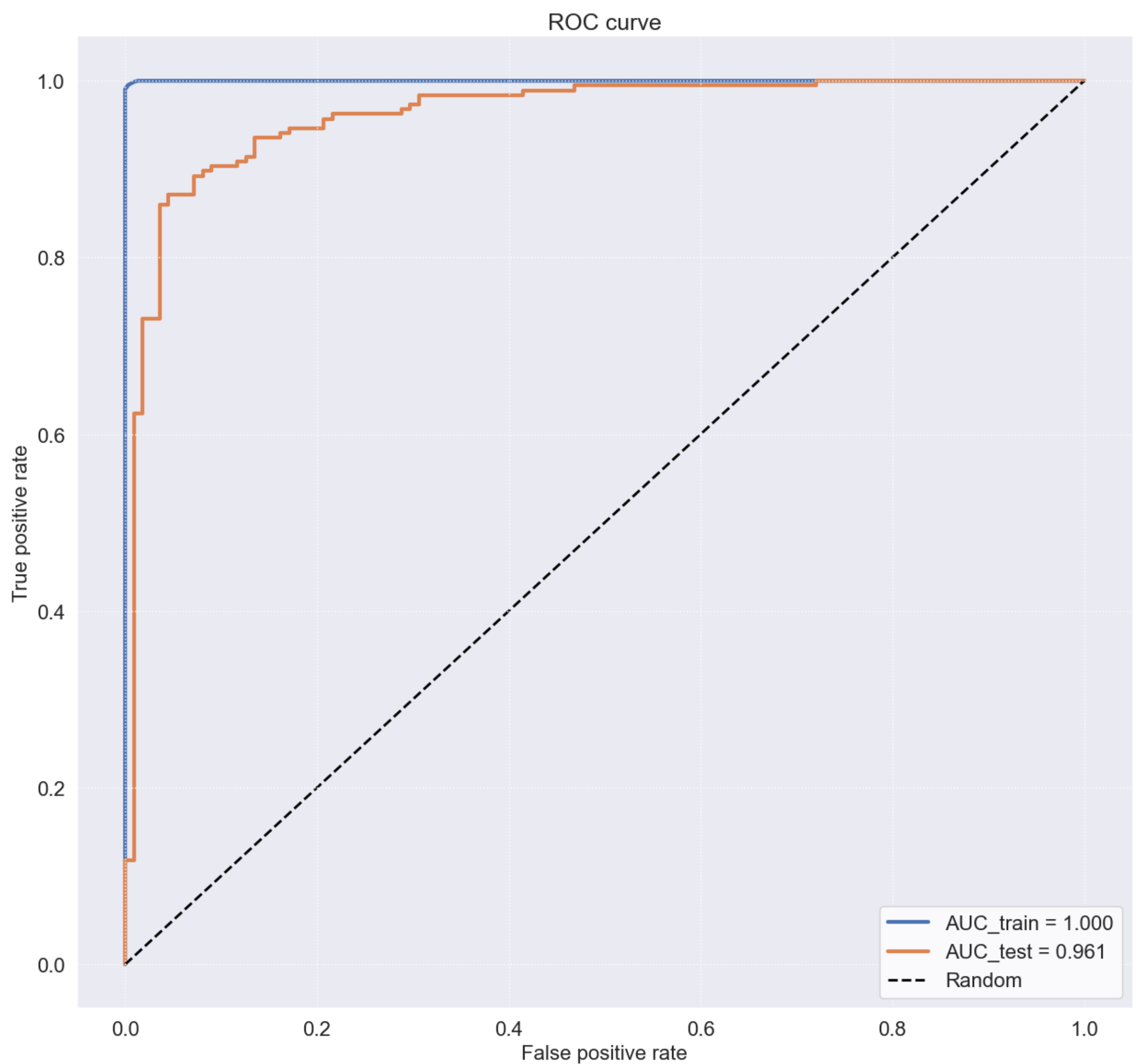
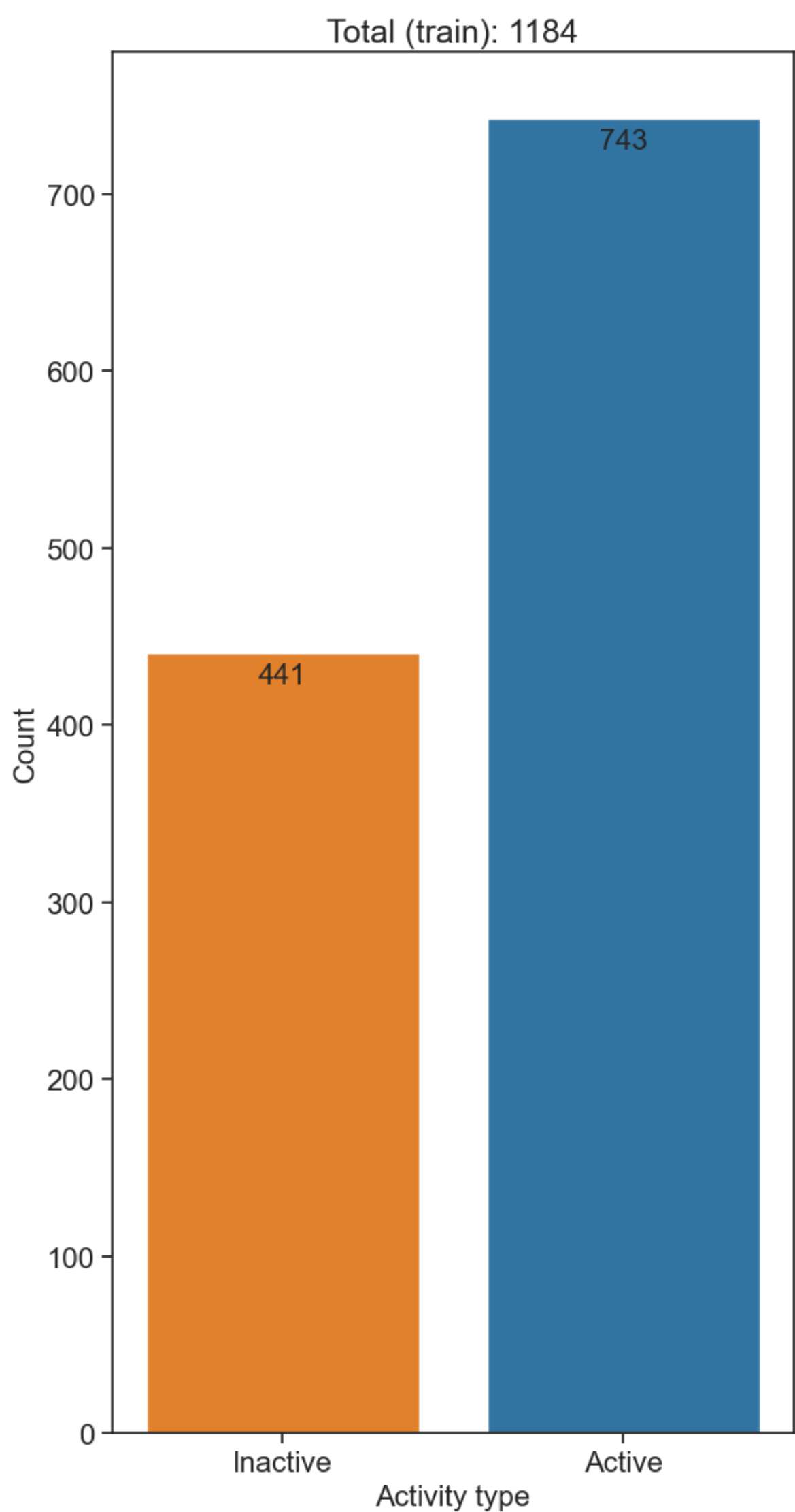
XGBoost Parameters	Value
alpha	3.6221
colsample_bytree	0.5853
gamma	0.3378
lambda	4.5761
learning_rate	0.0693
max_depth	9.0
min_child_weight	1.0
n_estimators	489.0
reg_alpha	0.9535
reg_lambda	0.6018
scale_pos_weight	1.0993
subsample	0.5869



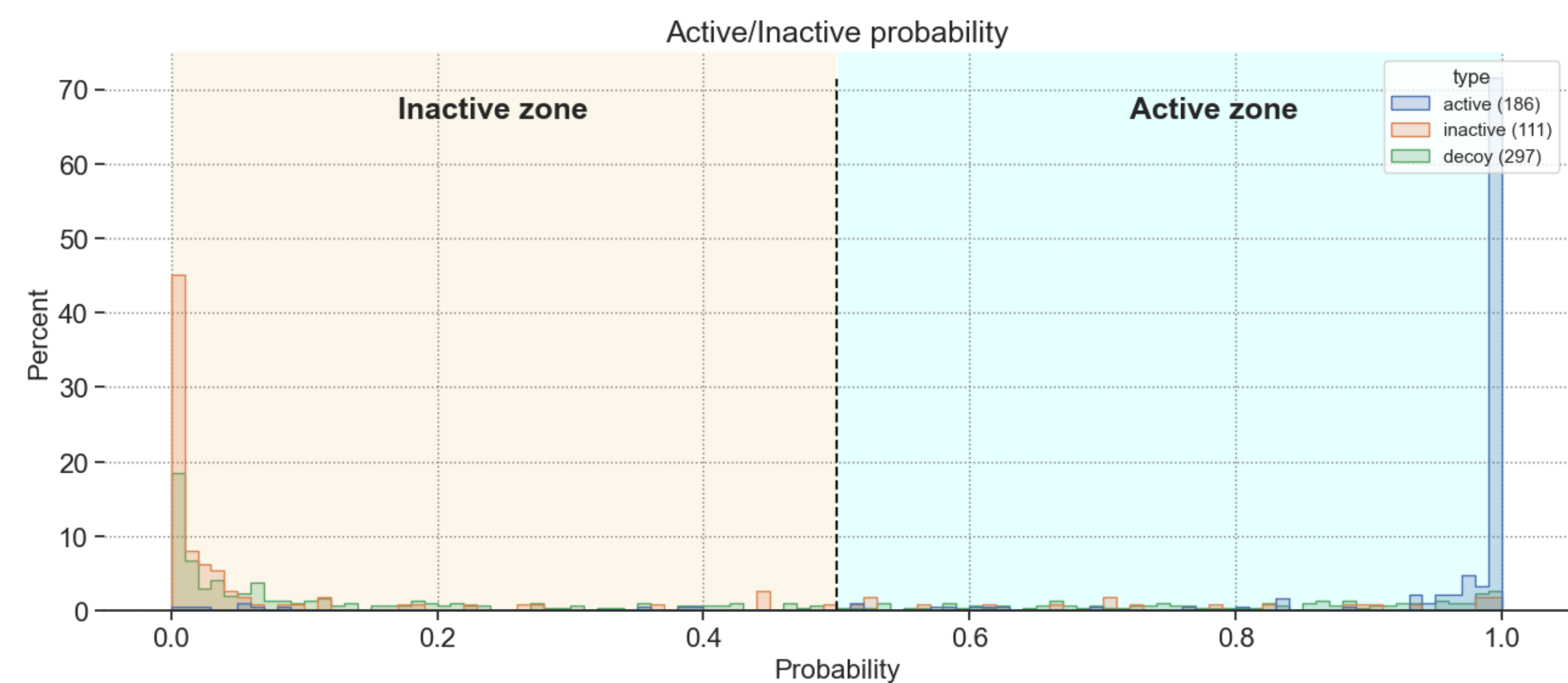
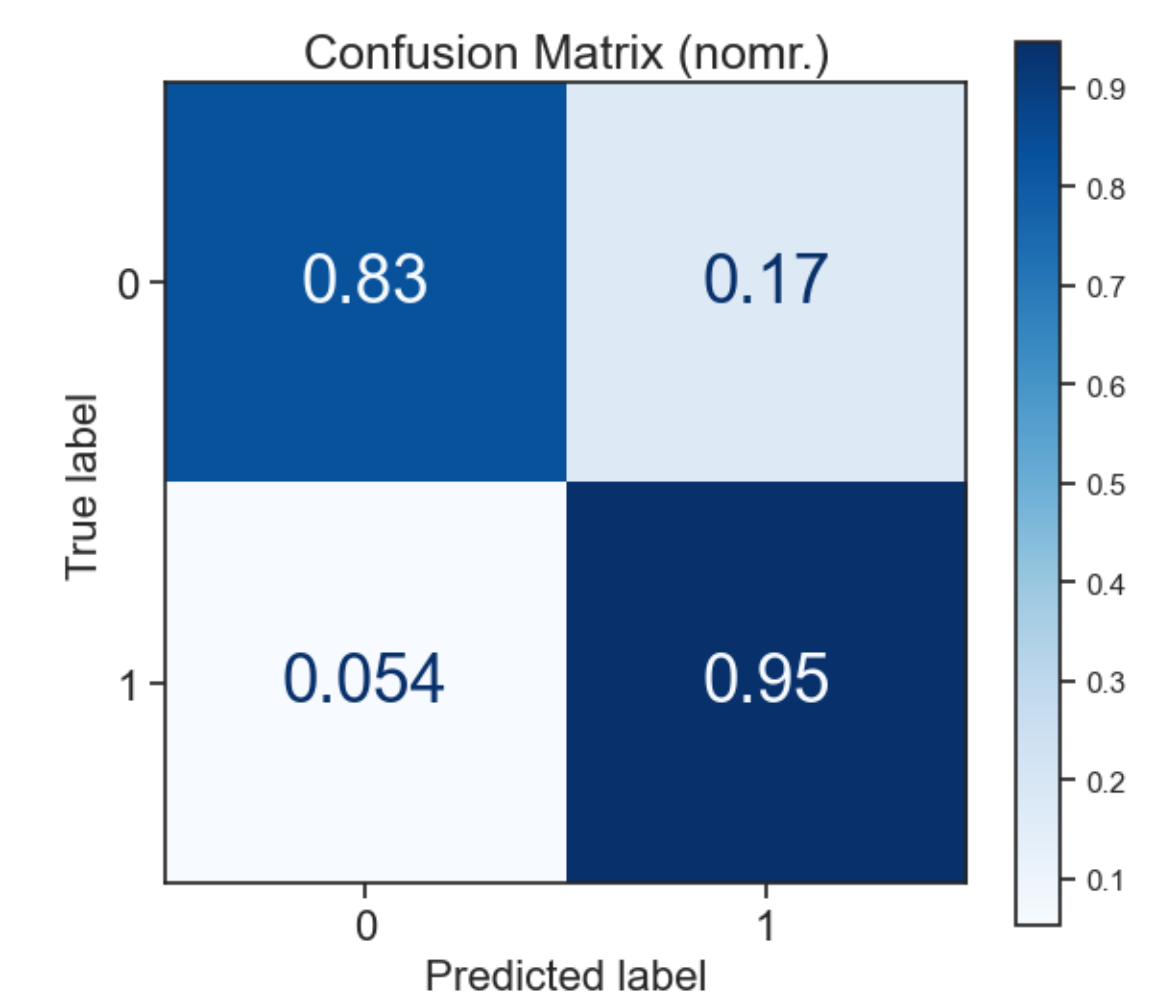
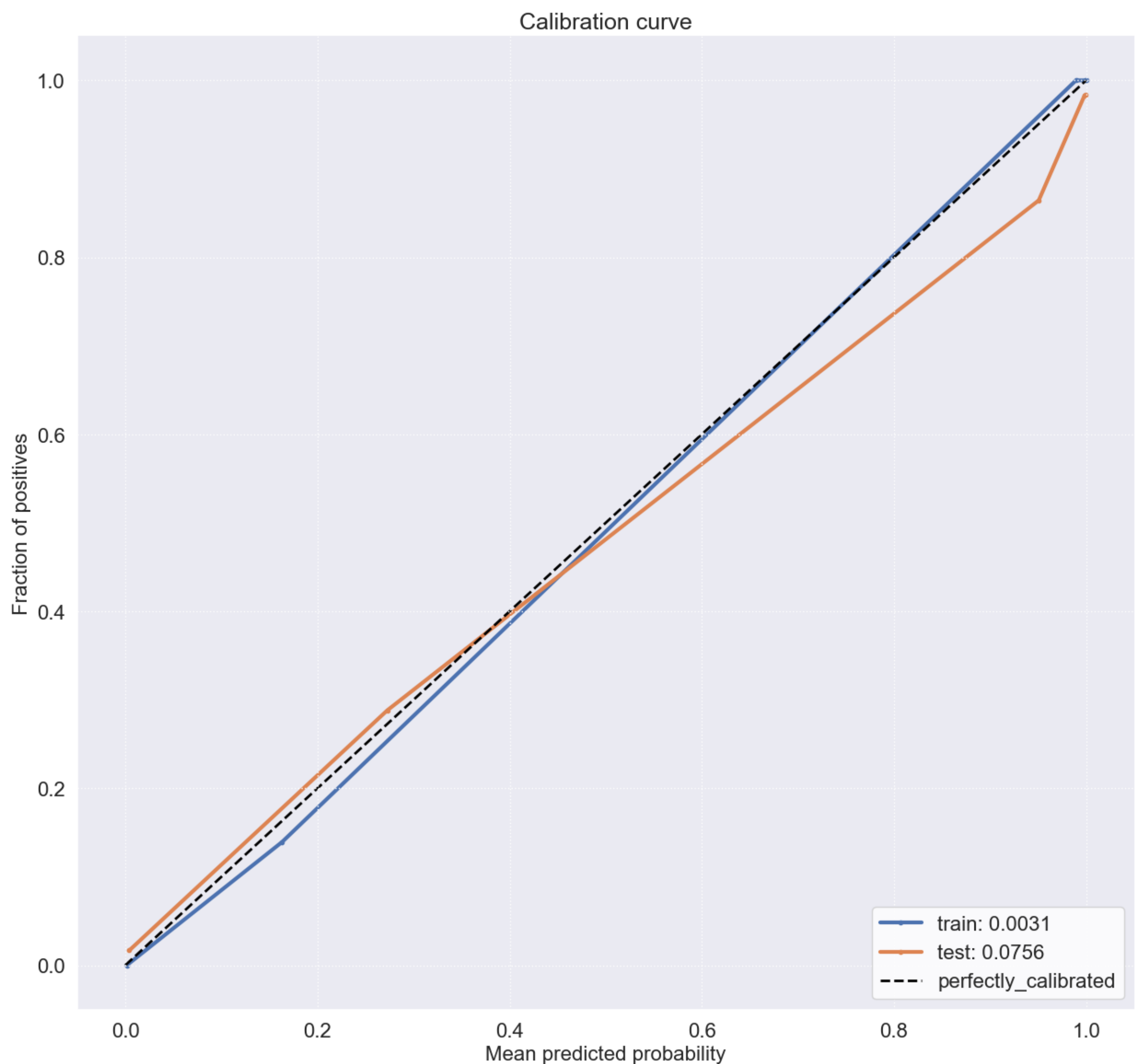
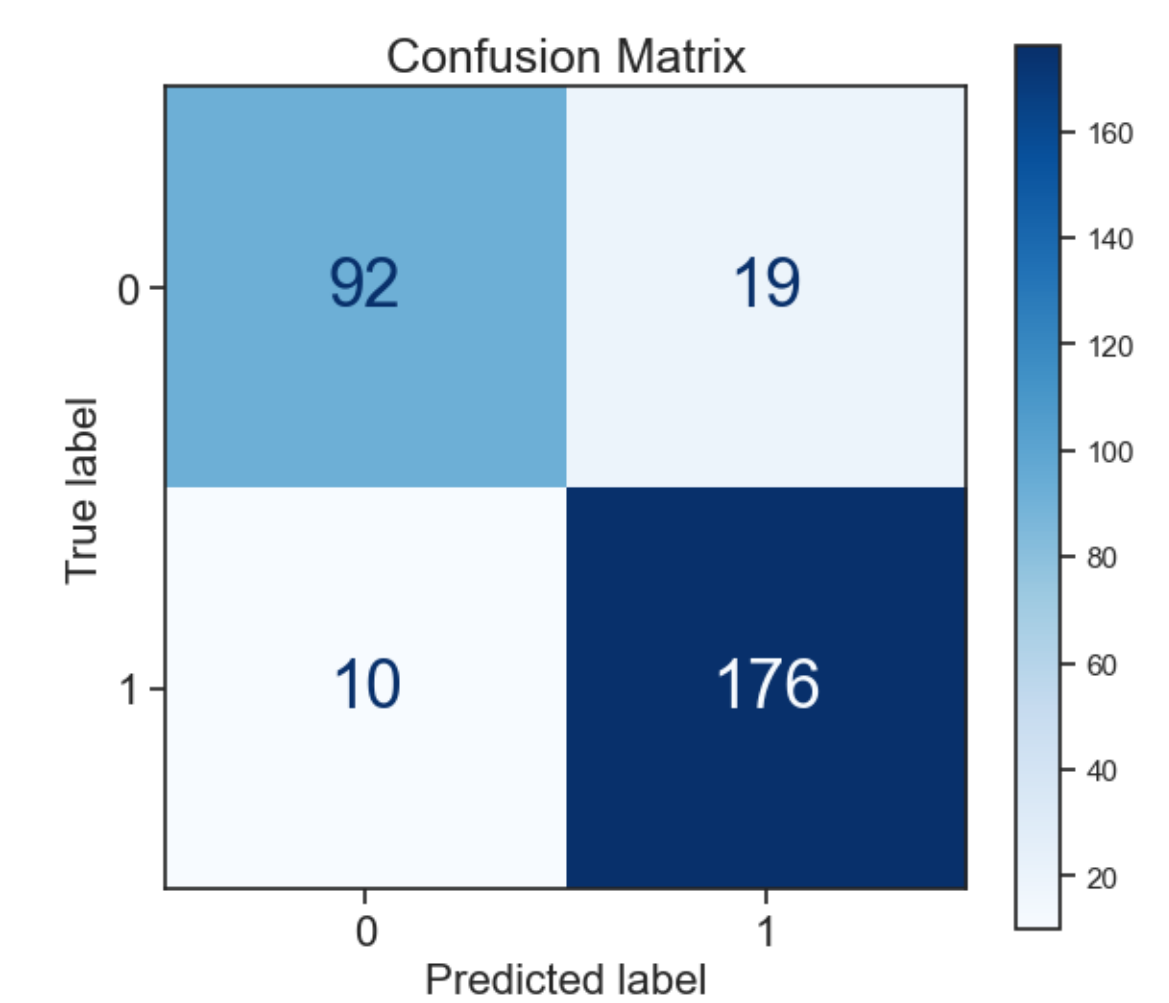
Metric	Train	Test
AUC	0.9987	0.9621
accuracy	0.984	0.899
balanced accuracy	0.9812	0.8867
recall_(sens)	0.9919	0.9355
specificity	0.9705	0.8378
precision	0.9827	0.9062
f1_score	0.9839	0.8984



Protein: P08172 - metric: precision



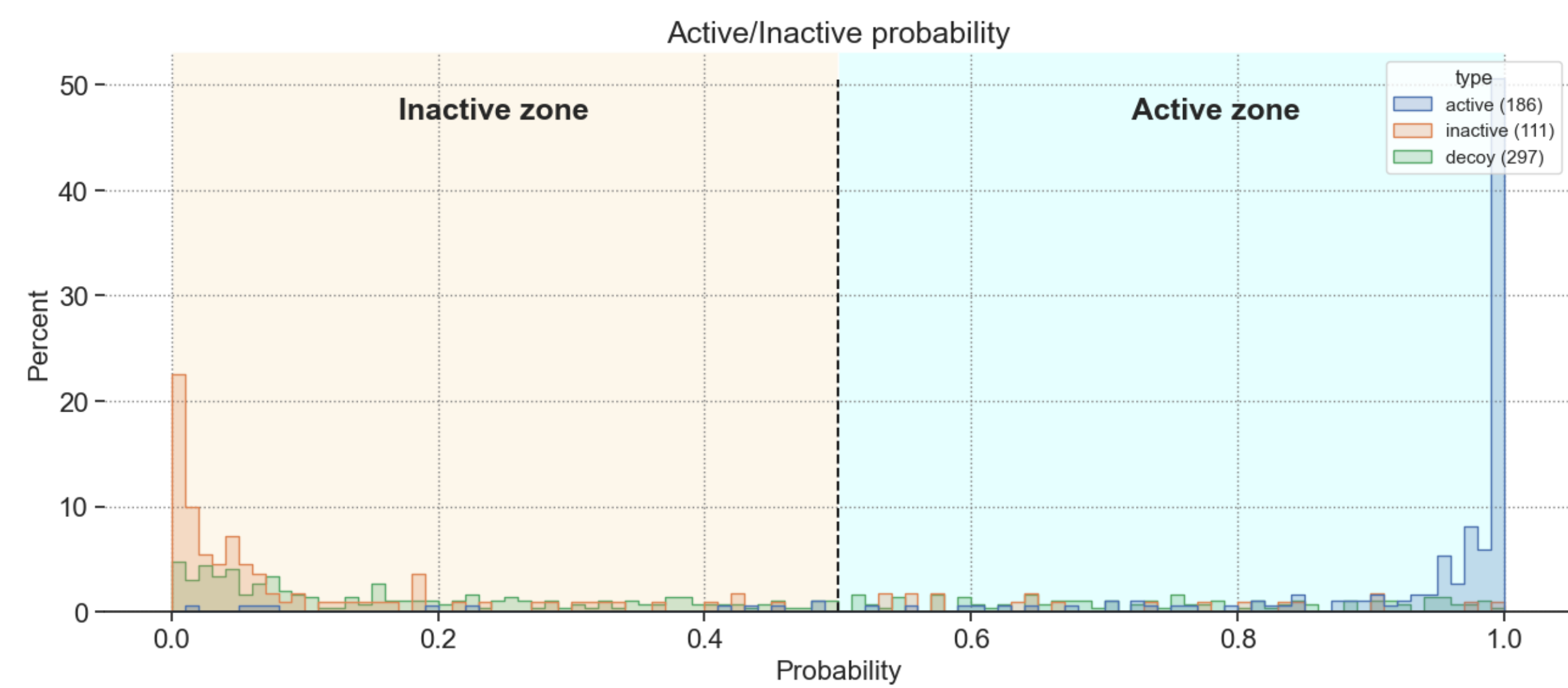
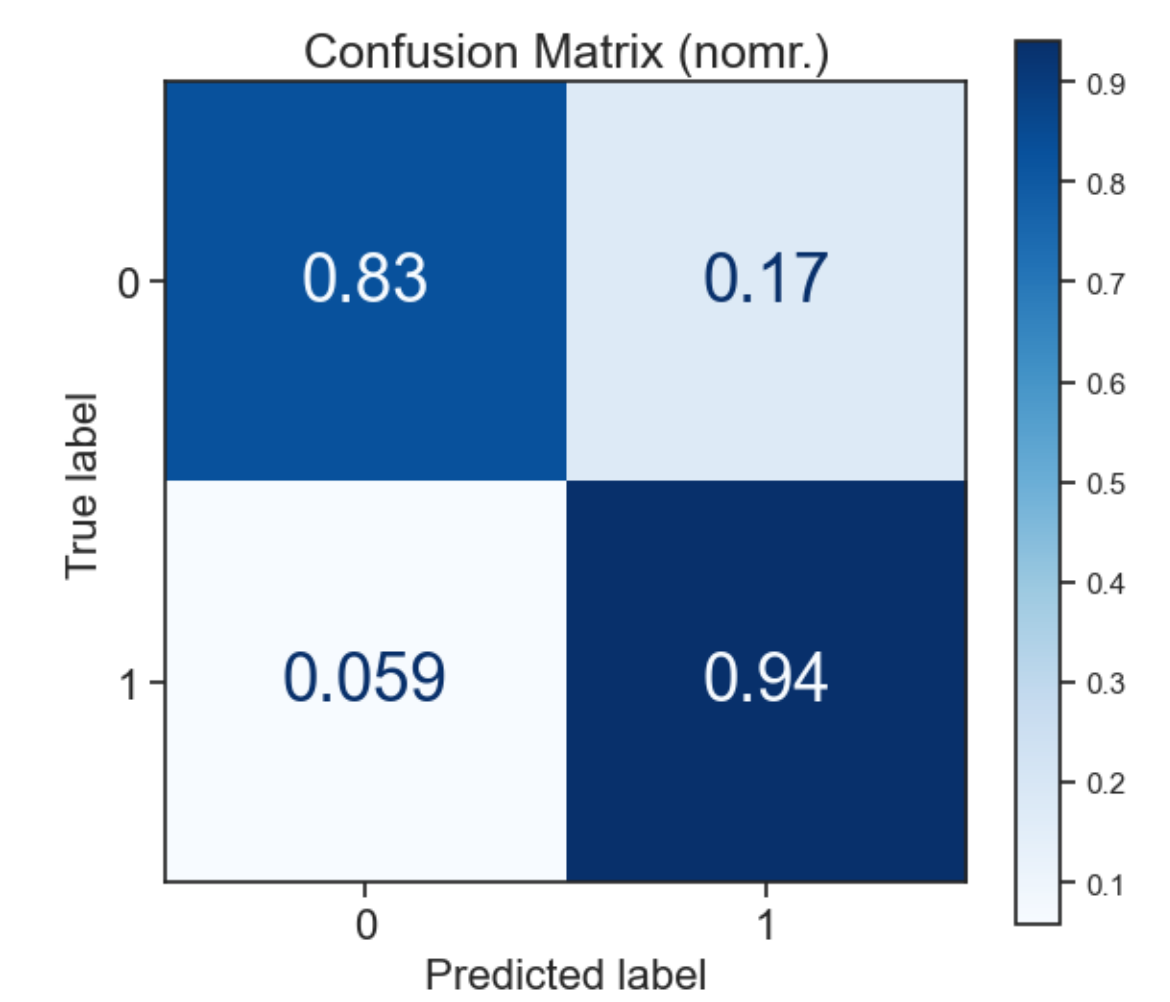
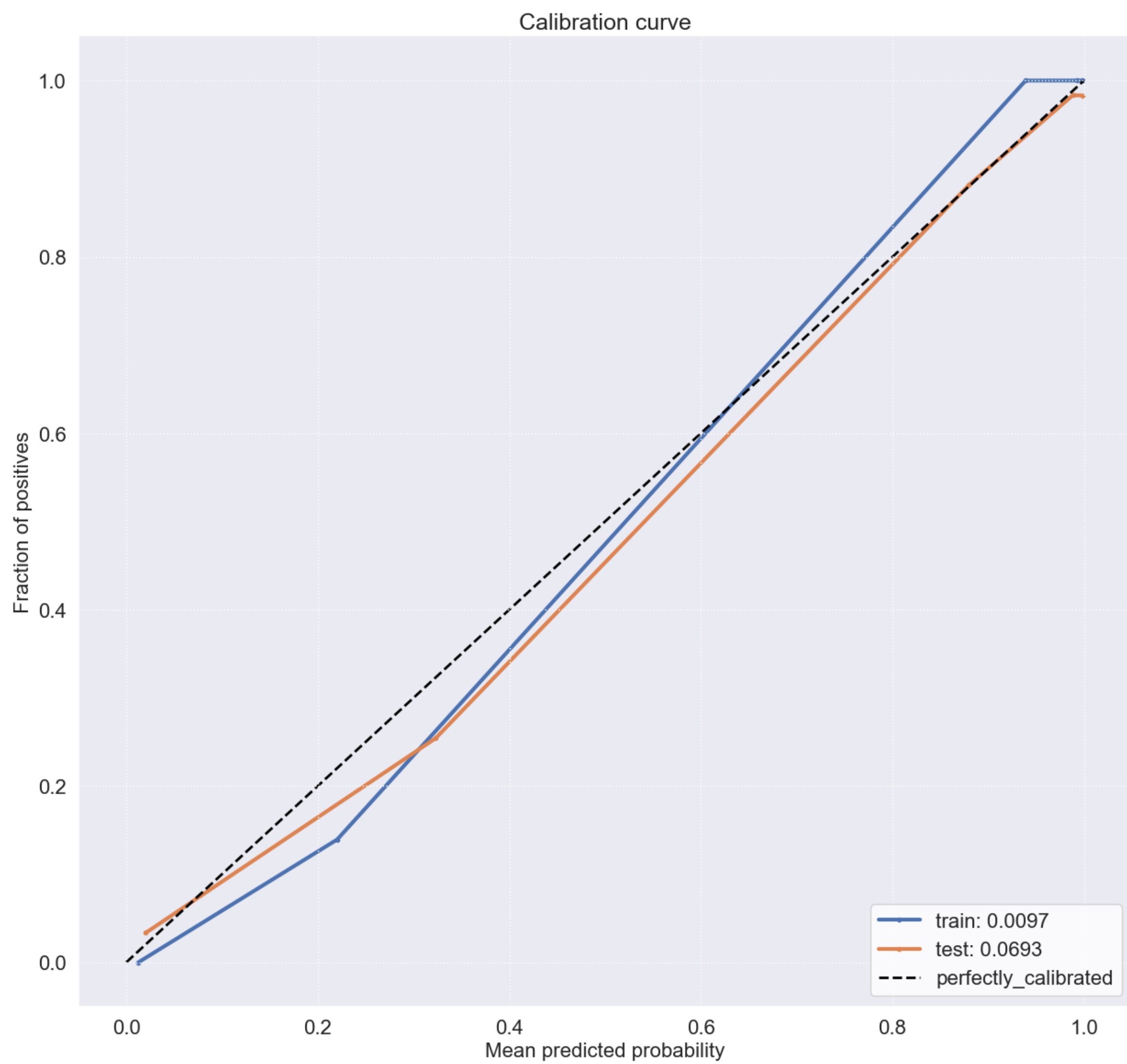
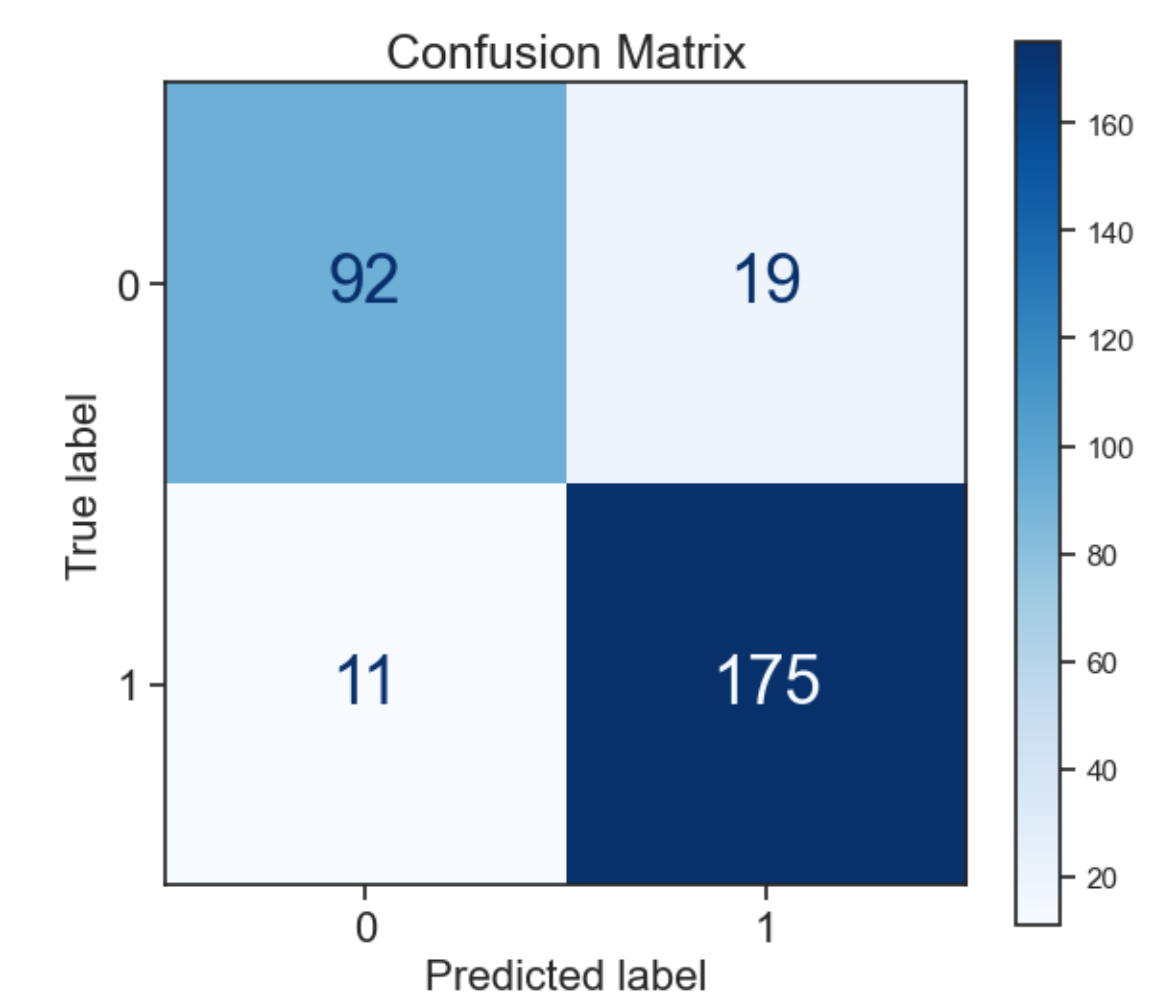
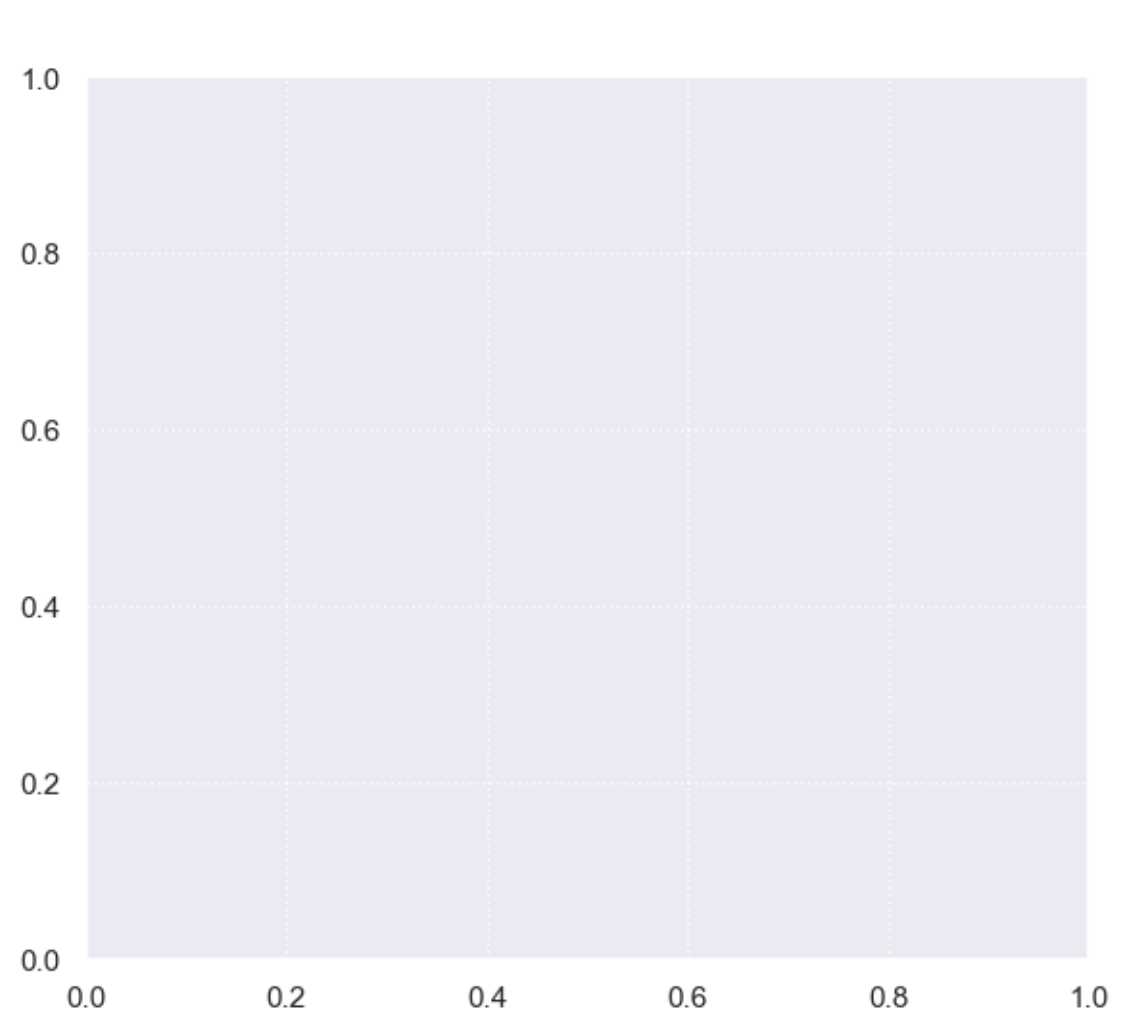
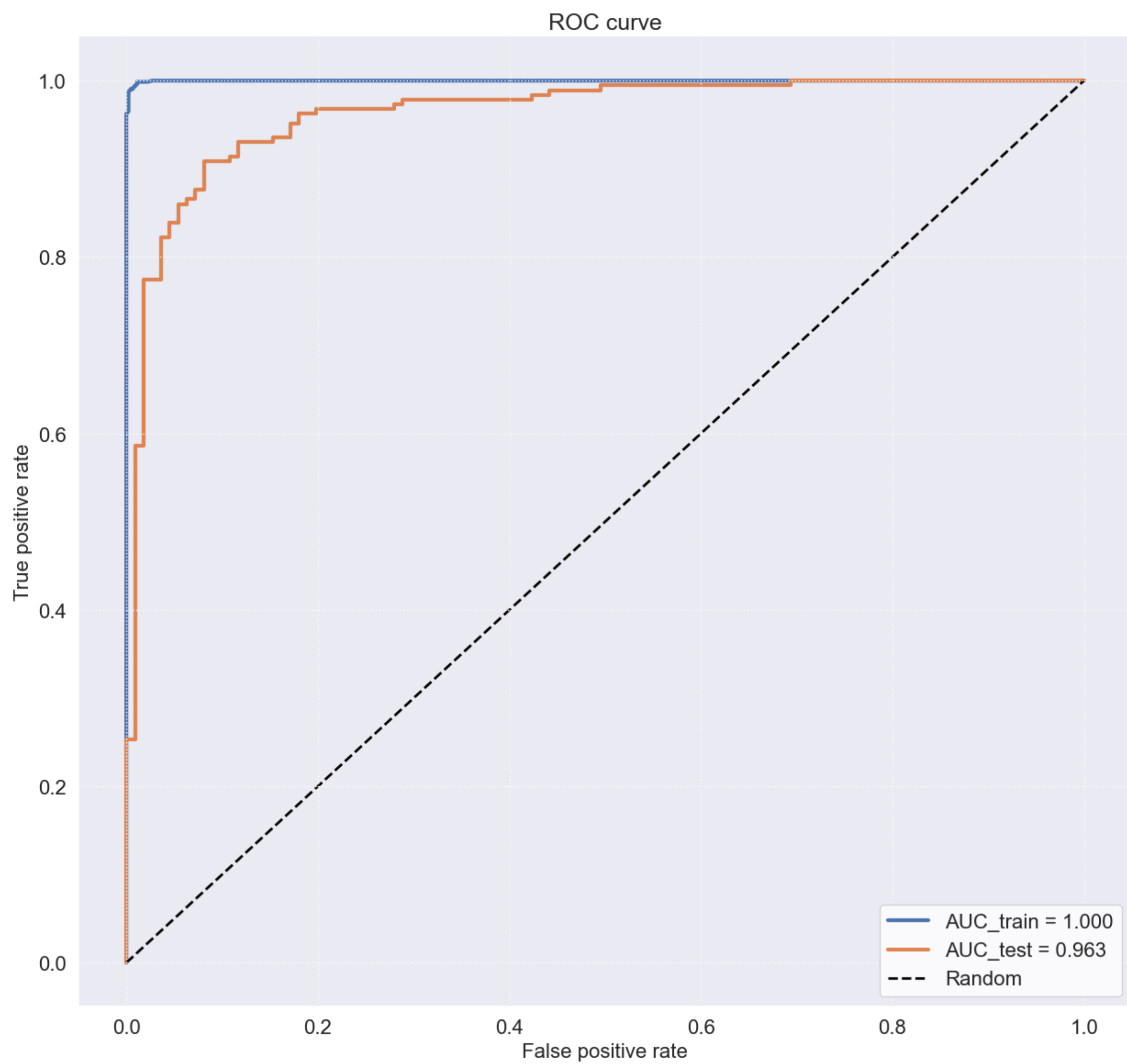
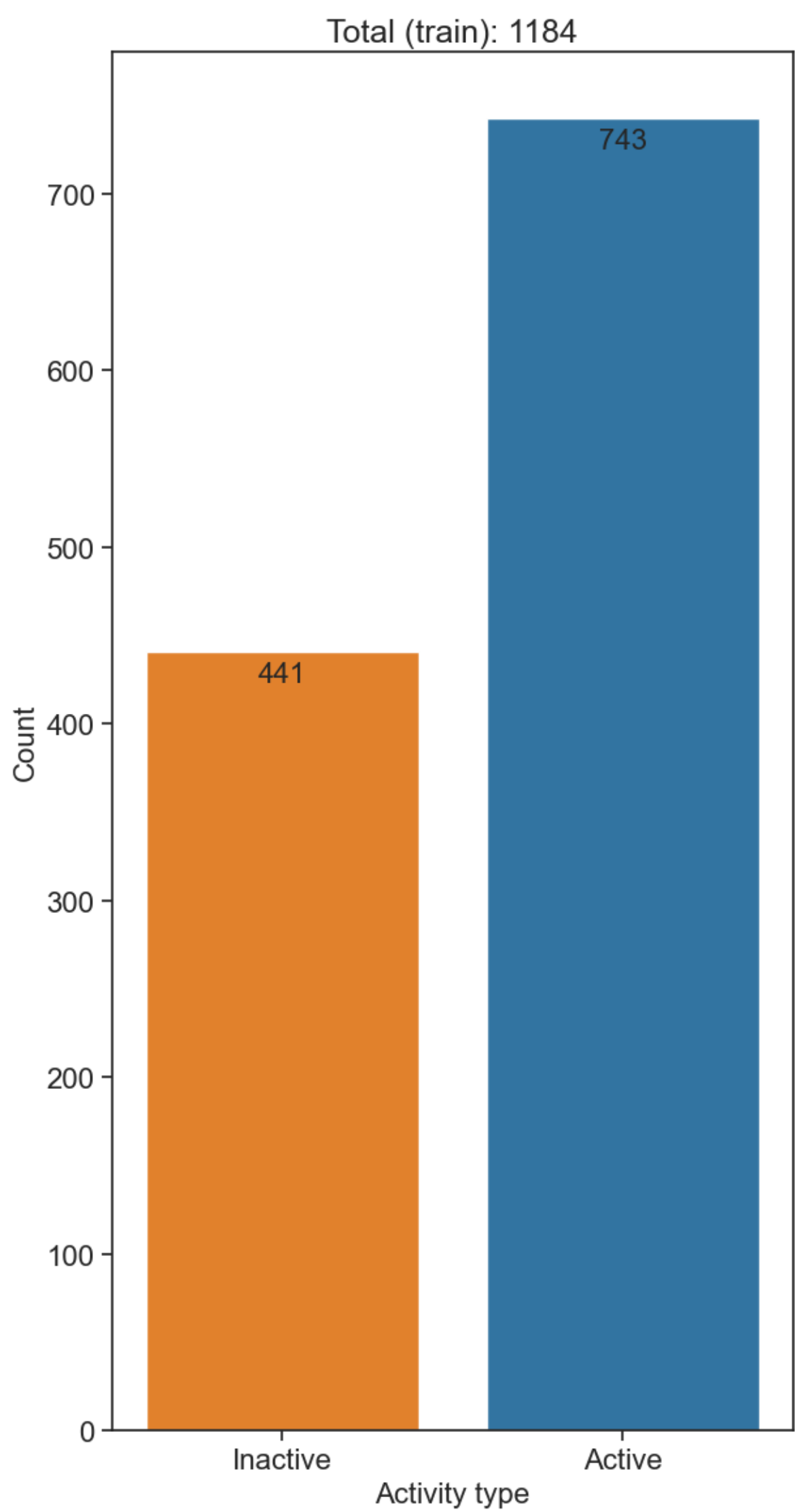
XGBoost Parameters	Value
alpha	3.4579
colsample_bytree	0.663
gamma	0.0304
lambda	2.3241
learning_rate	0.1026
max_depth	10.0
min_child_weight	1.0
n_estimators	745.0
reg_alpha	0.0116
reg_lambda	0.0886
scale_pos_weight	1.5341
subsample	0.8459



Metric	Train	Test
AUC	1.0	0.9614
accuracy	0.9958	0.9024
balanced accuracy	0.9948	0.8875
recall_(sens)	0.9987	0.9462
specificity	0.9909	0.8288
precision	0.9946	0.9026
f1_score	0.9958	0.9014



Protein: P08172 - metric: SoftVotingXGBoostEnsemble



Metric	Train	Test
AUC	0.9998	0.9631
accuracy	0.9941	0.899
balanced accuracy	0.993	0.8848
recall_(sens)	0.9973	0.9409
specificity	0.9887	0.8288
precision	0.9933	0.9021
f1_score	0.9941	0.8982