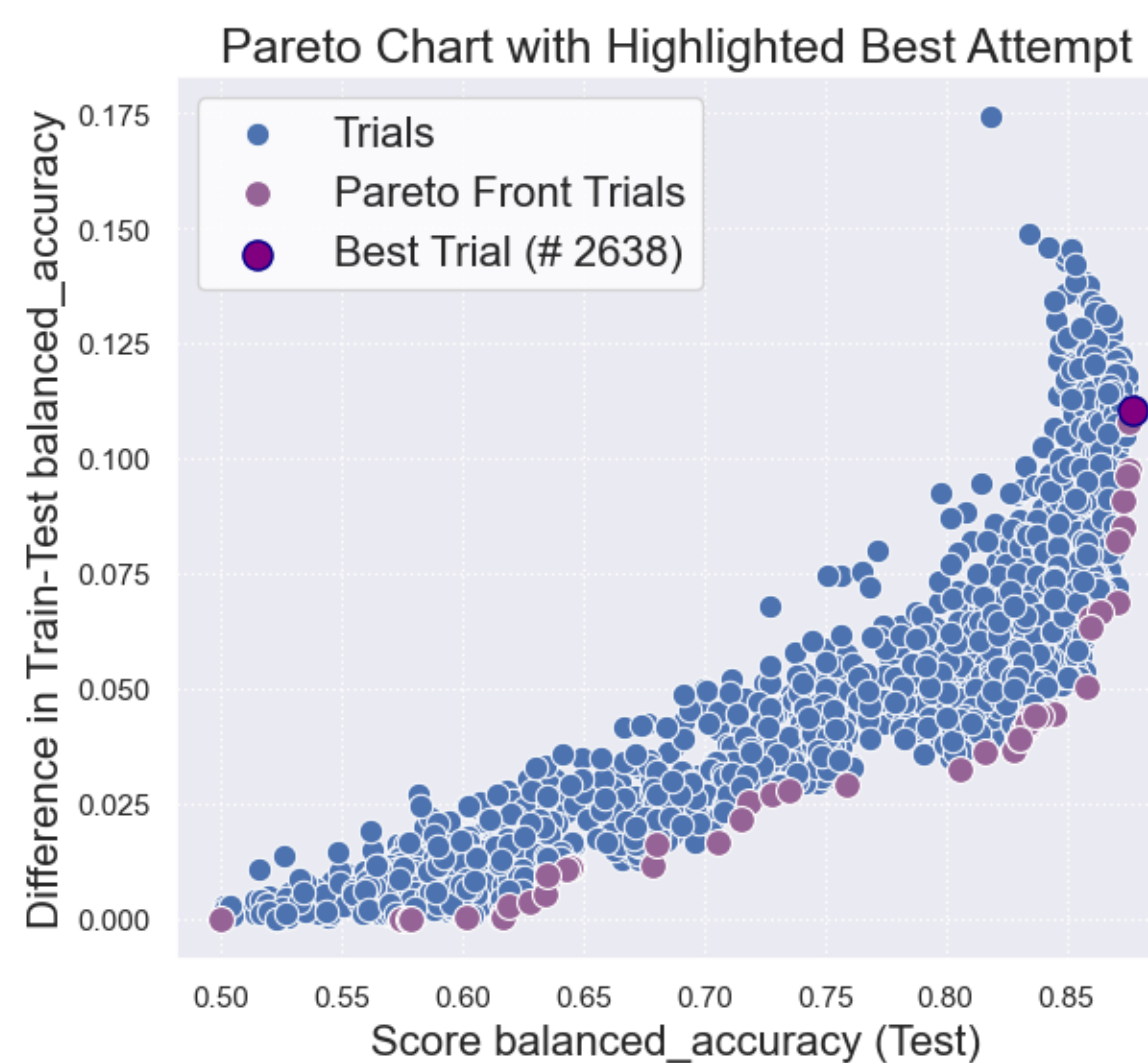
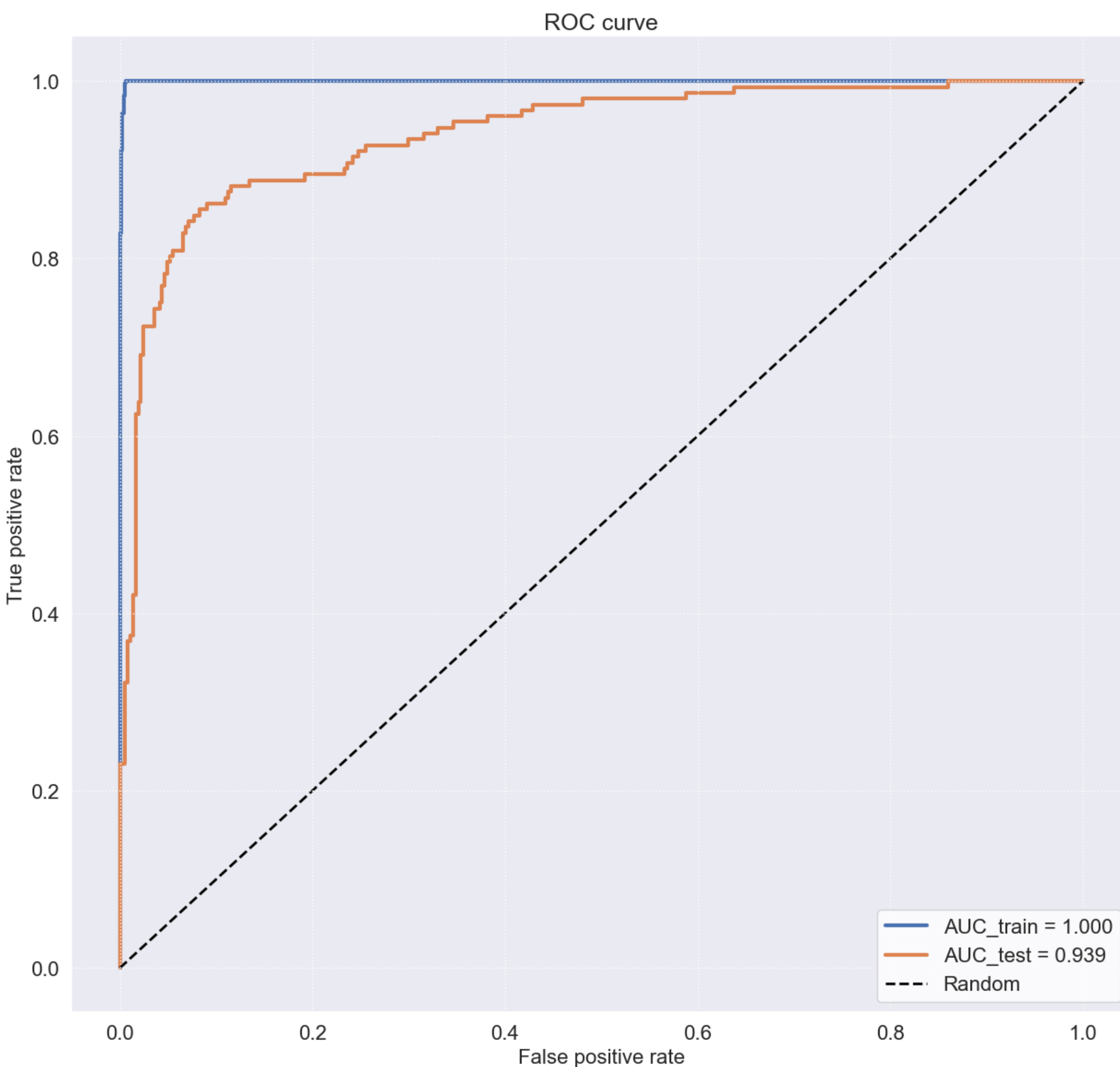
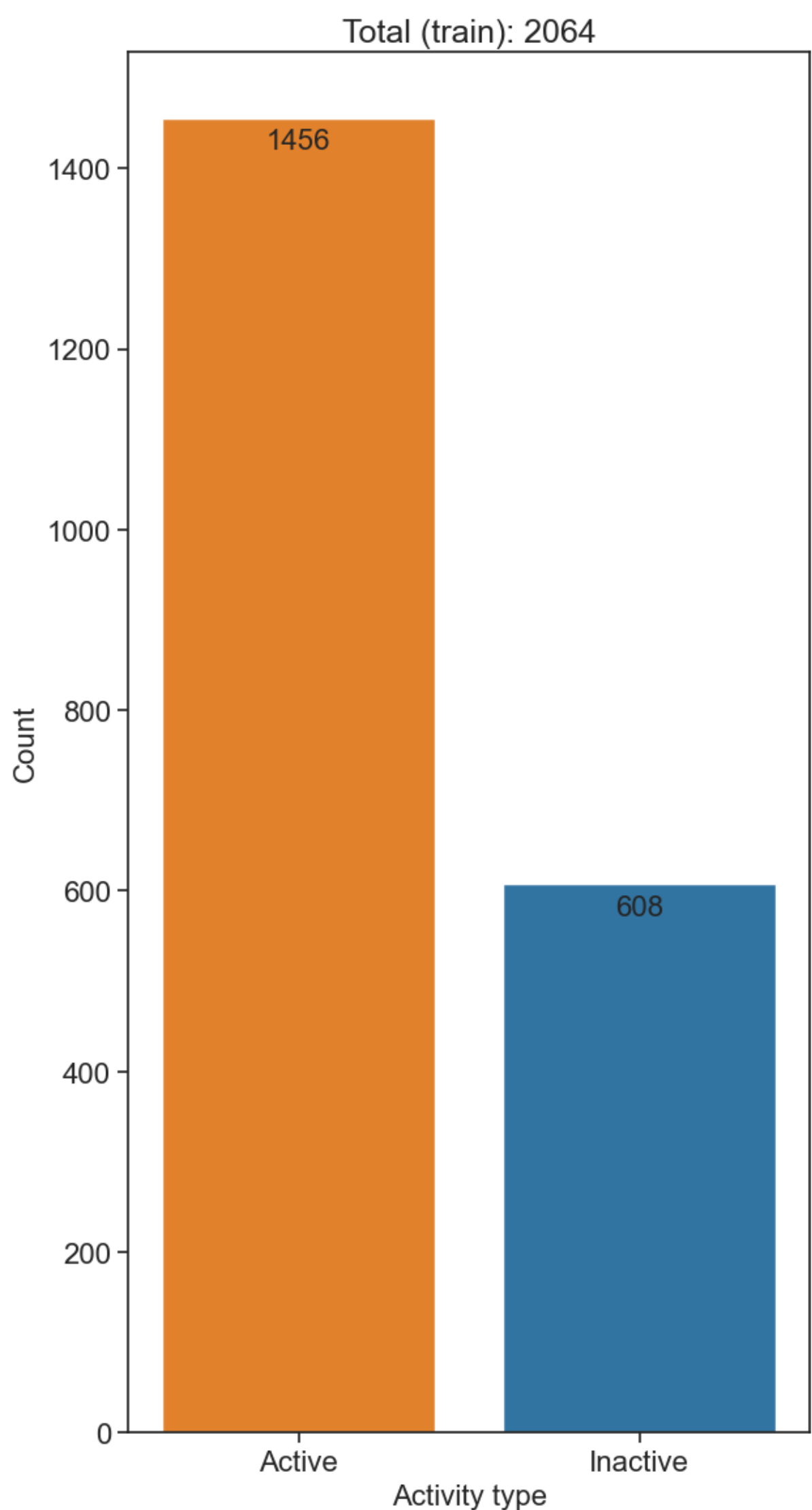
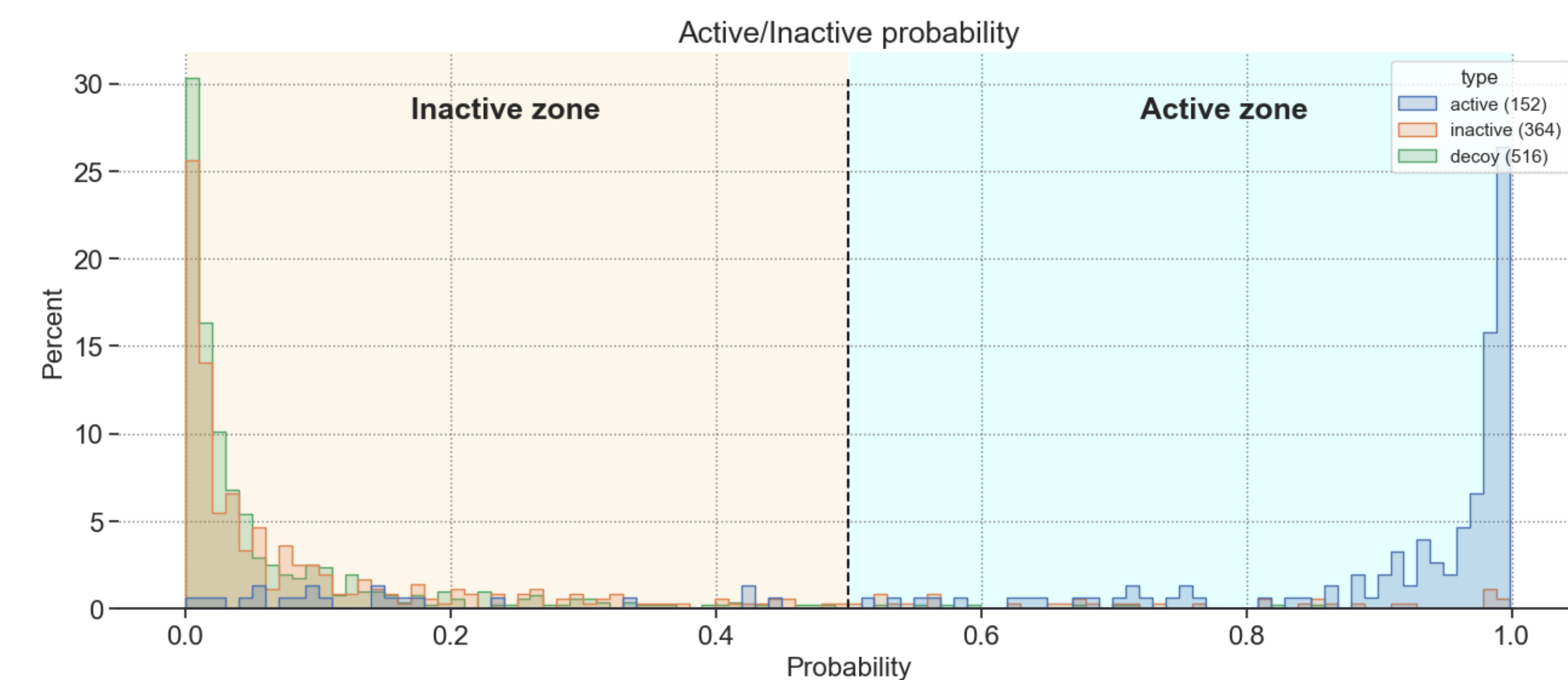
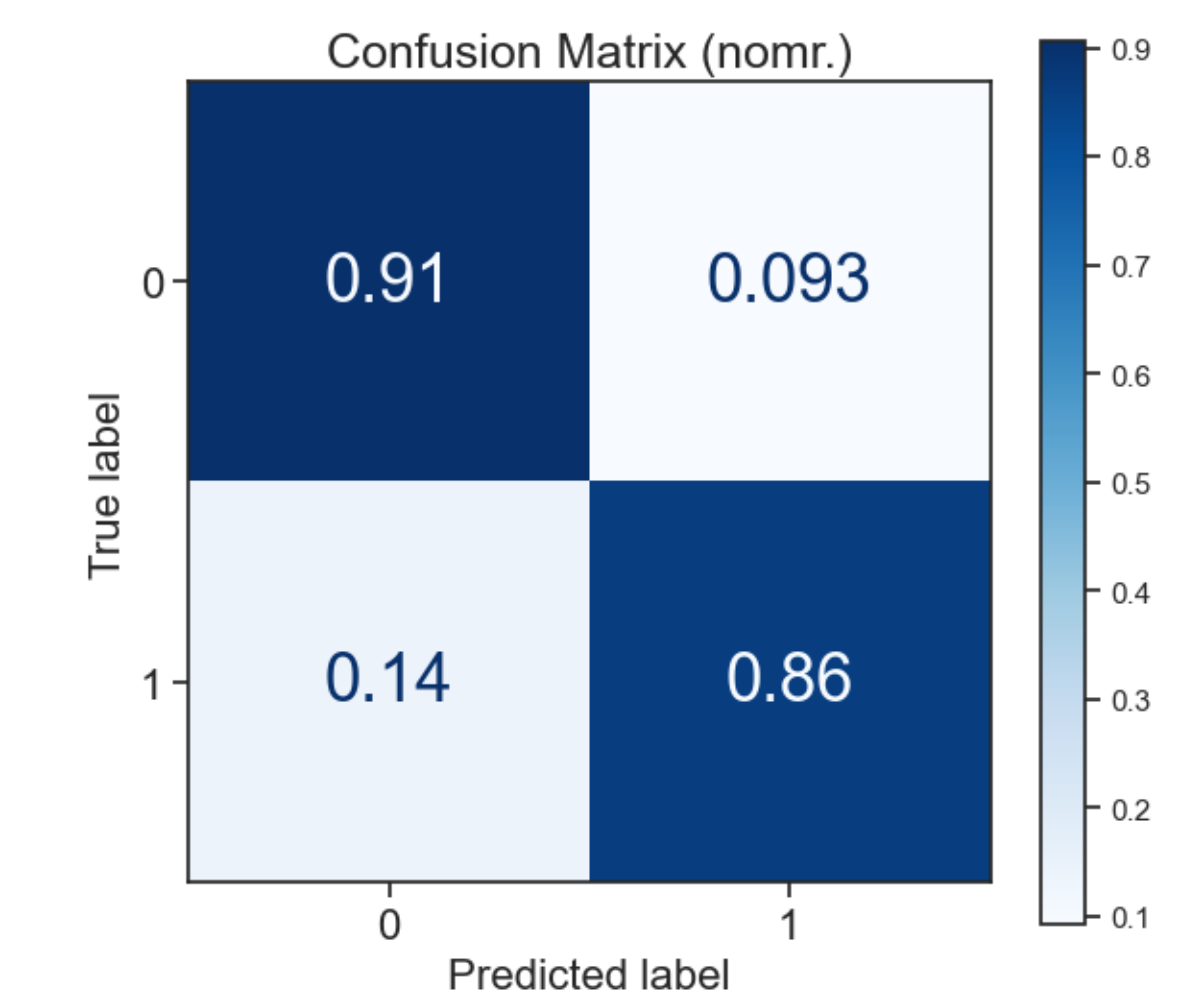
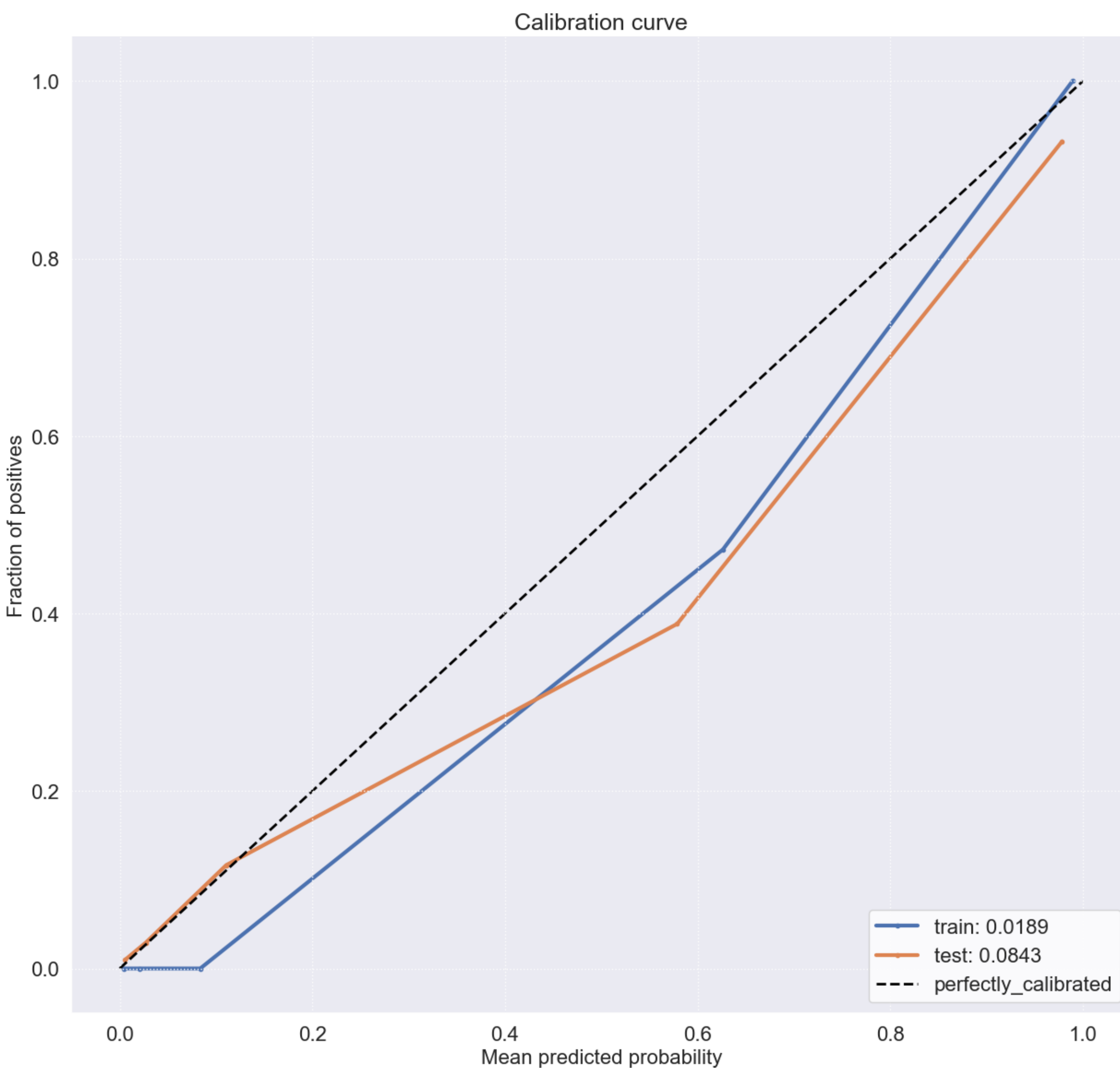
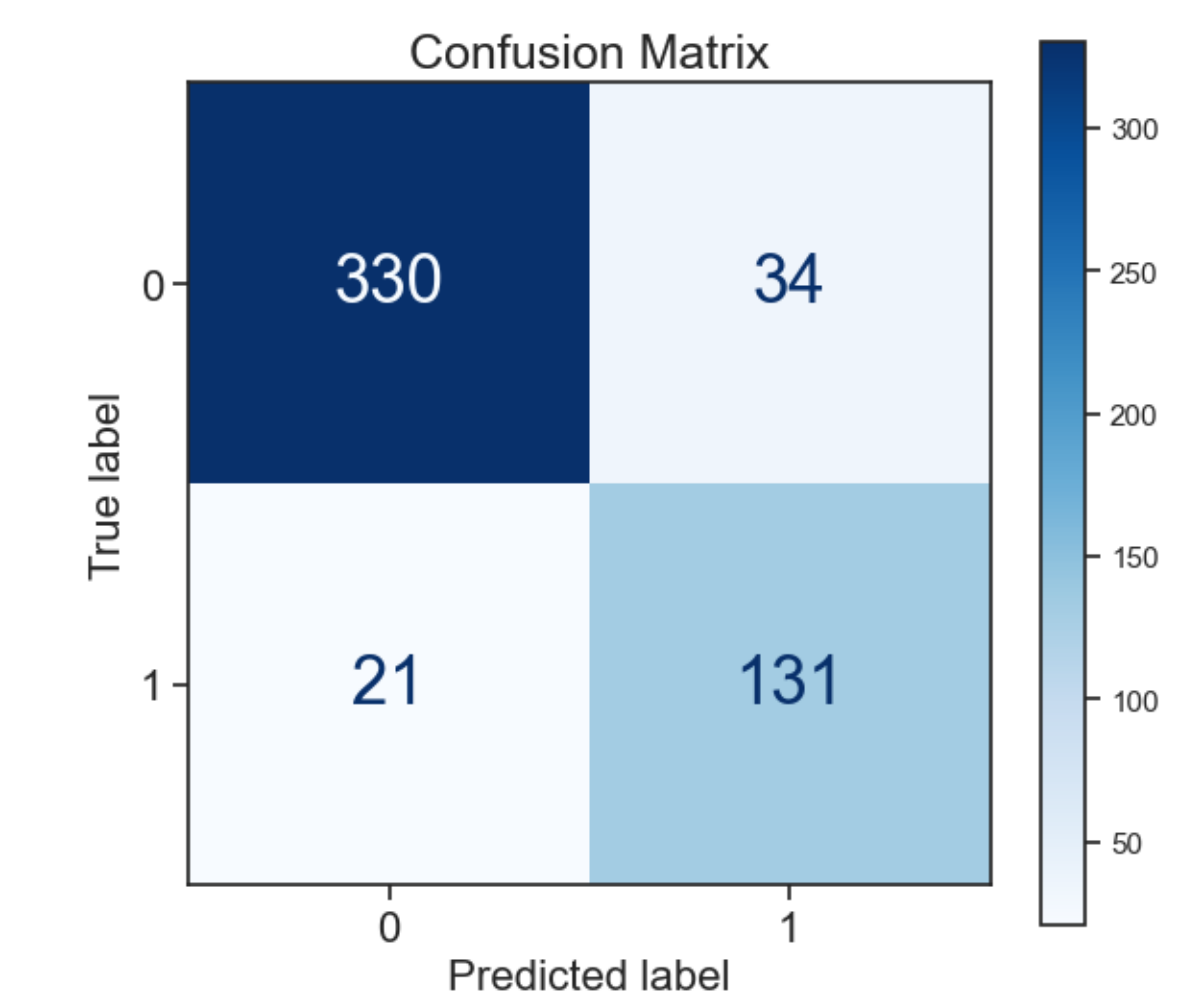


Protein: P49841 - metric: balanced_accuracy

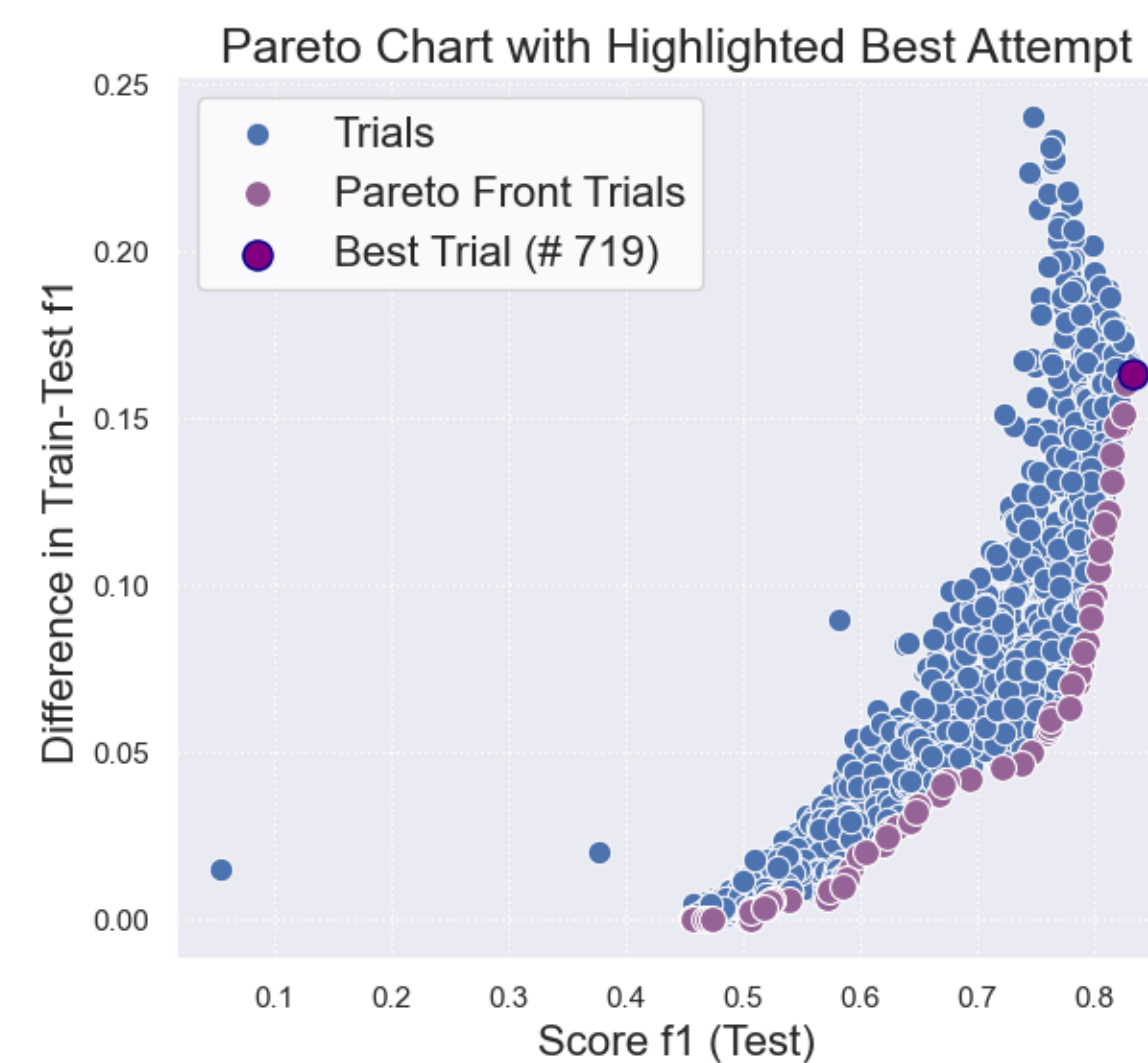
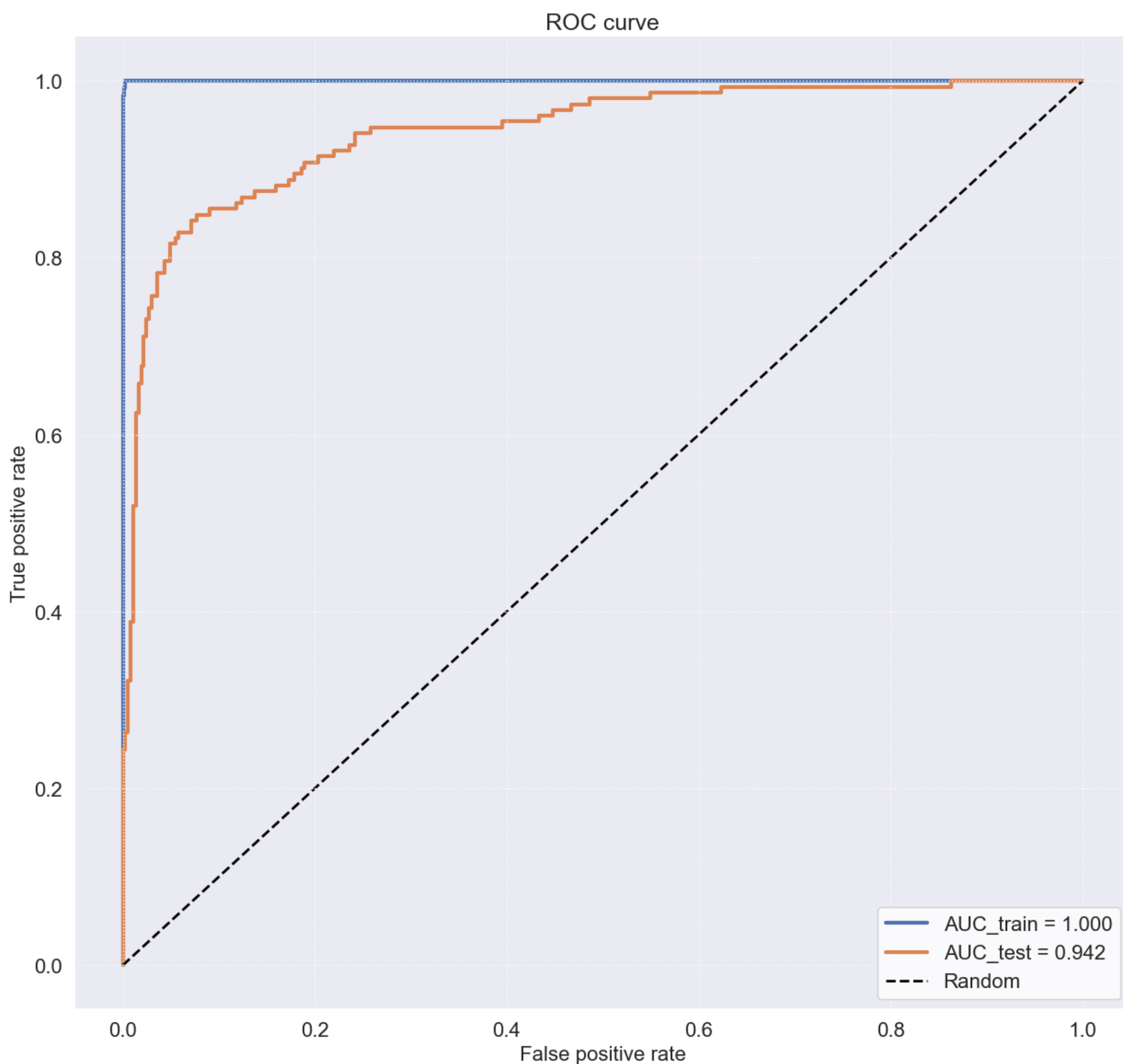
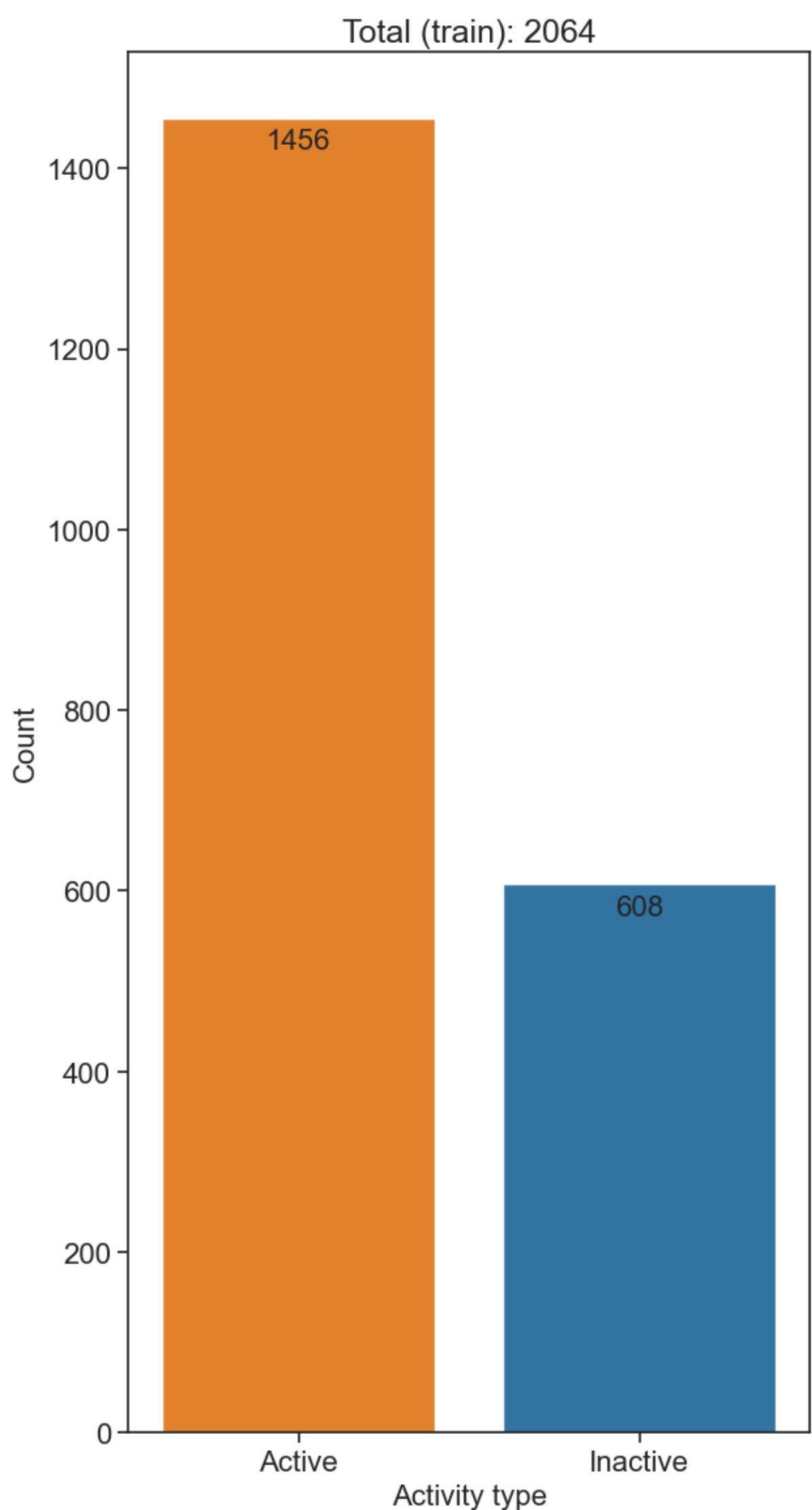


XGBoost Parameters	Value
alpha	4.189
colsample_bytree	0.5674
gamma	0.824
lambda	2.5548
learning_rate	0.0622
max_depth	9.0
min_child_weight	1.0
n_estimators	390.0
reg_alpha	0.9254
reg_lambda	0.2771
scale_pos_weight	7.043
subsample	0.5923

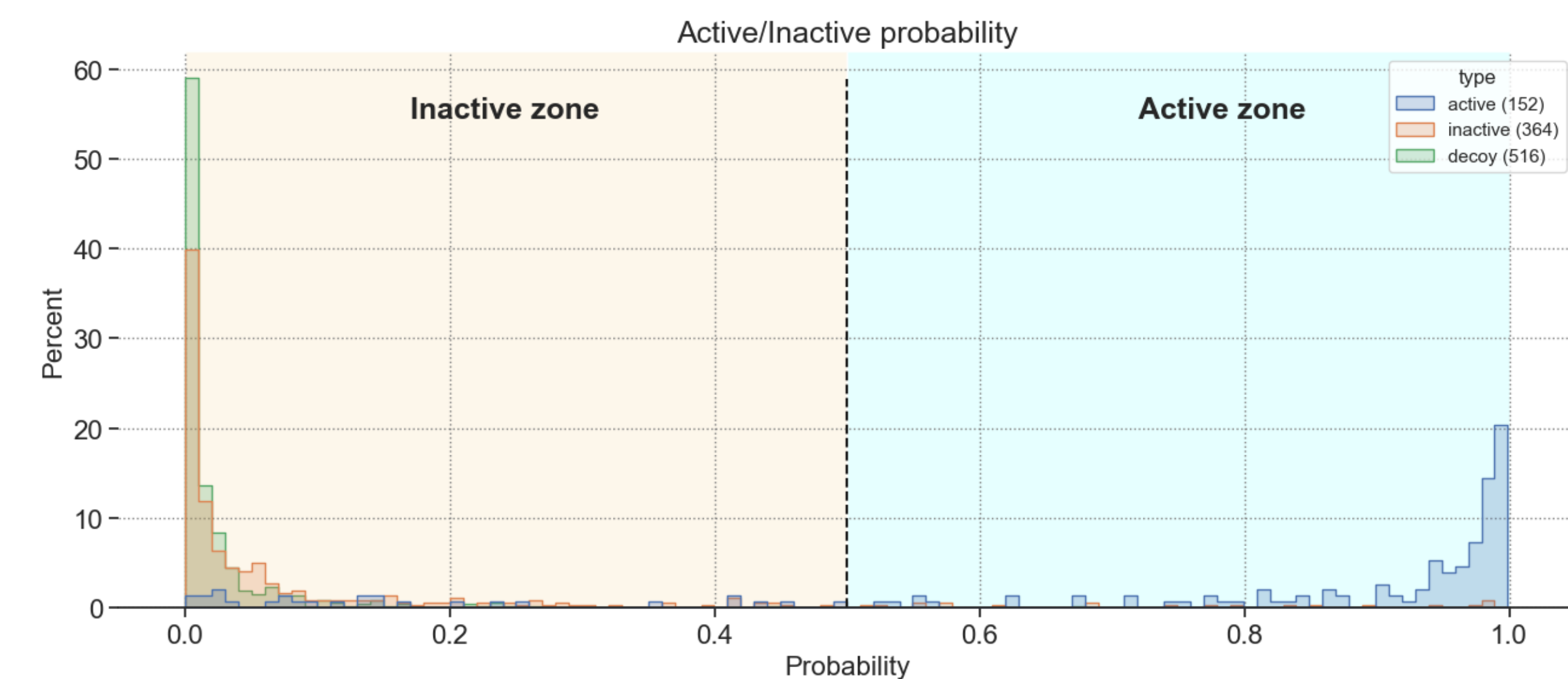
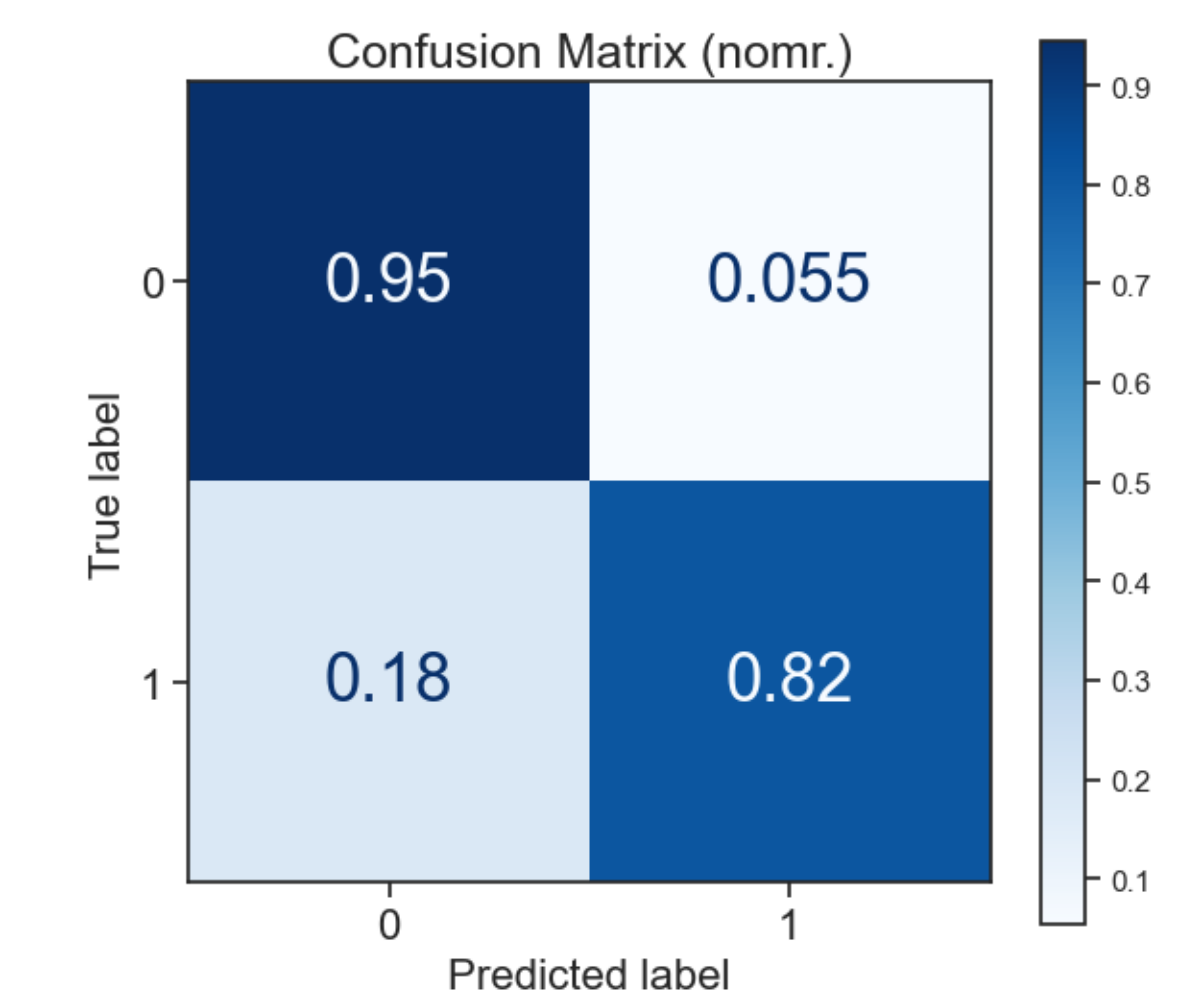
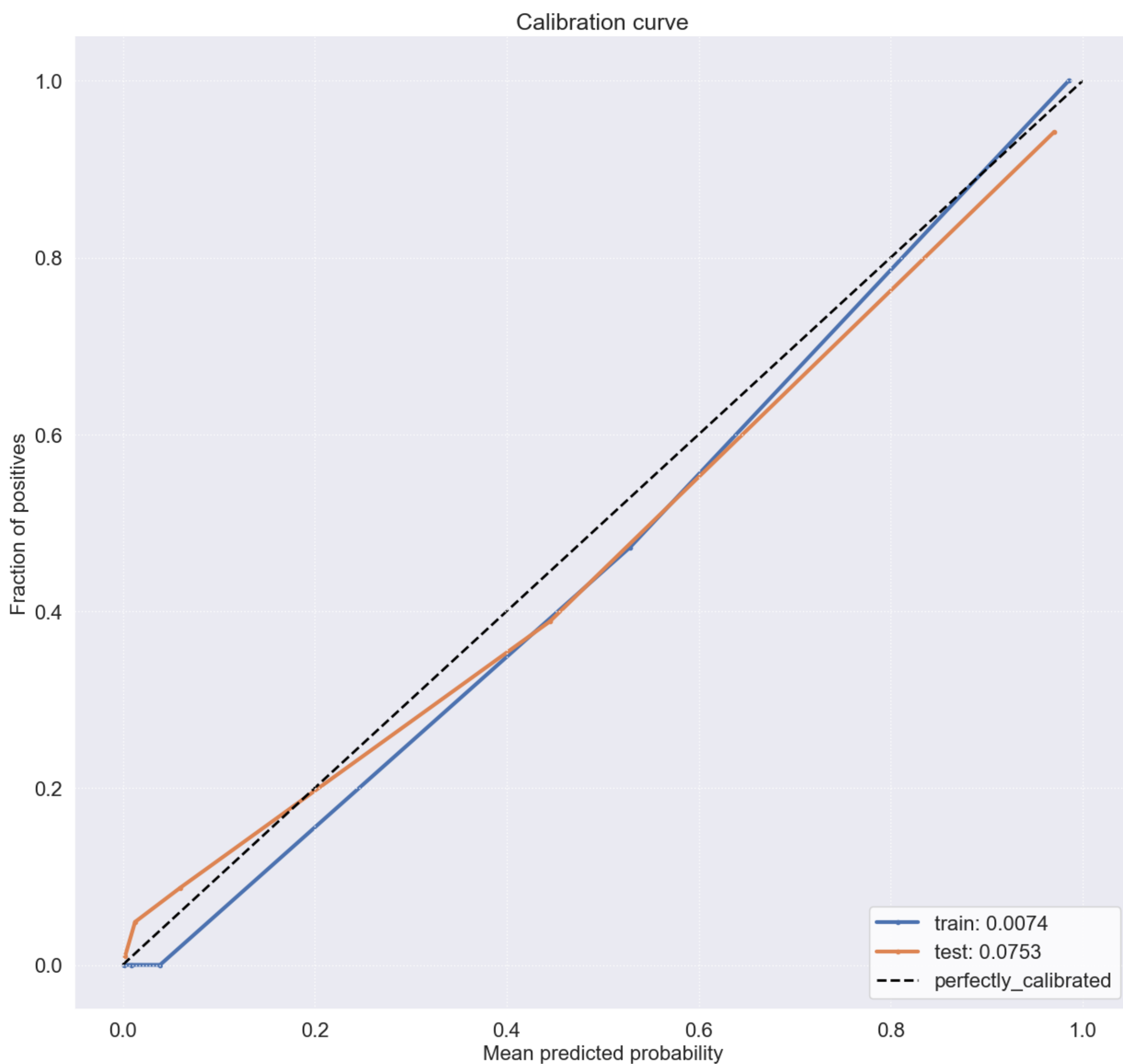
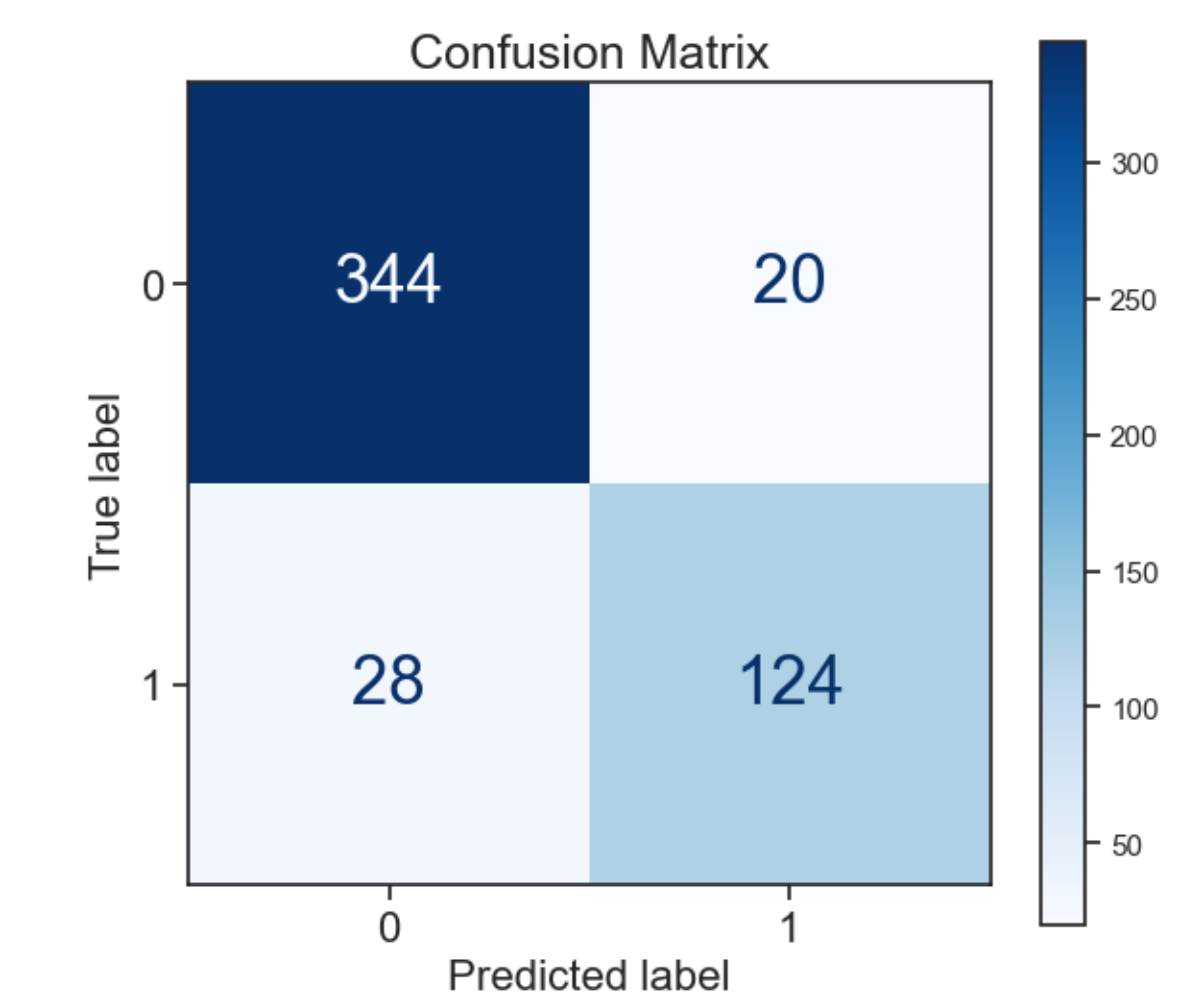


Metric	Train	Test
AUC	0.9996	0.9393
accuracy	0.984	0.8934
balanced accuracy	0.9887	0.8842
recall_(sens)	1.0	0.8618
specificity	0.9773	0.9066
precision	0.9485	0.7939
f1_score	0.9841	0.8946

Protein: P49841 - metric: f1

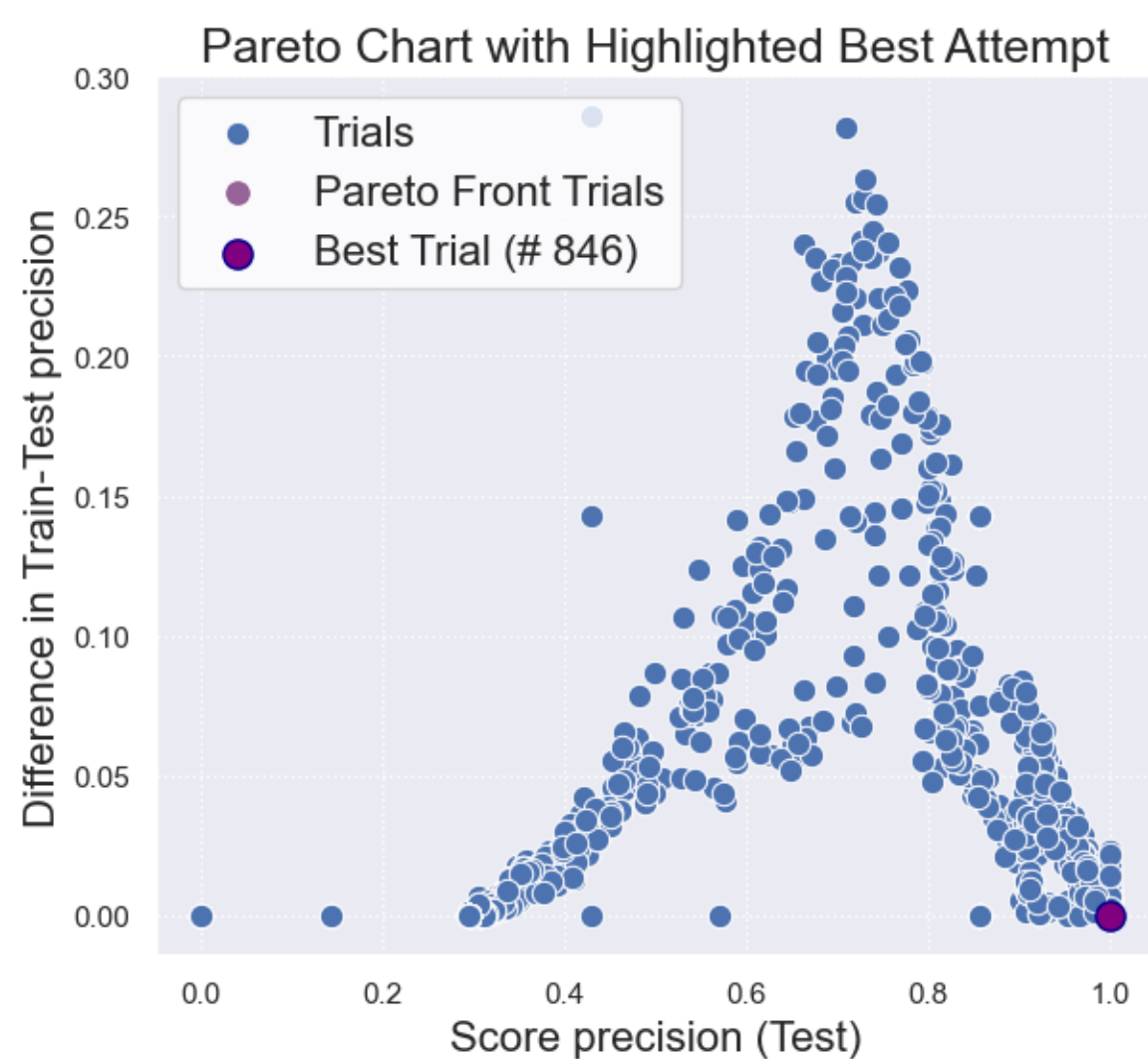
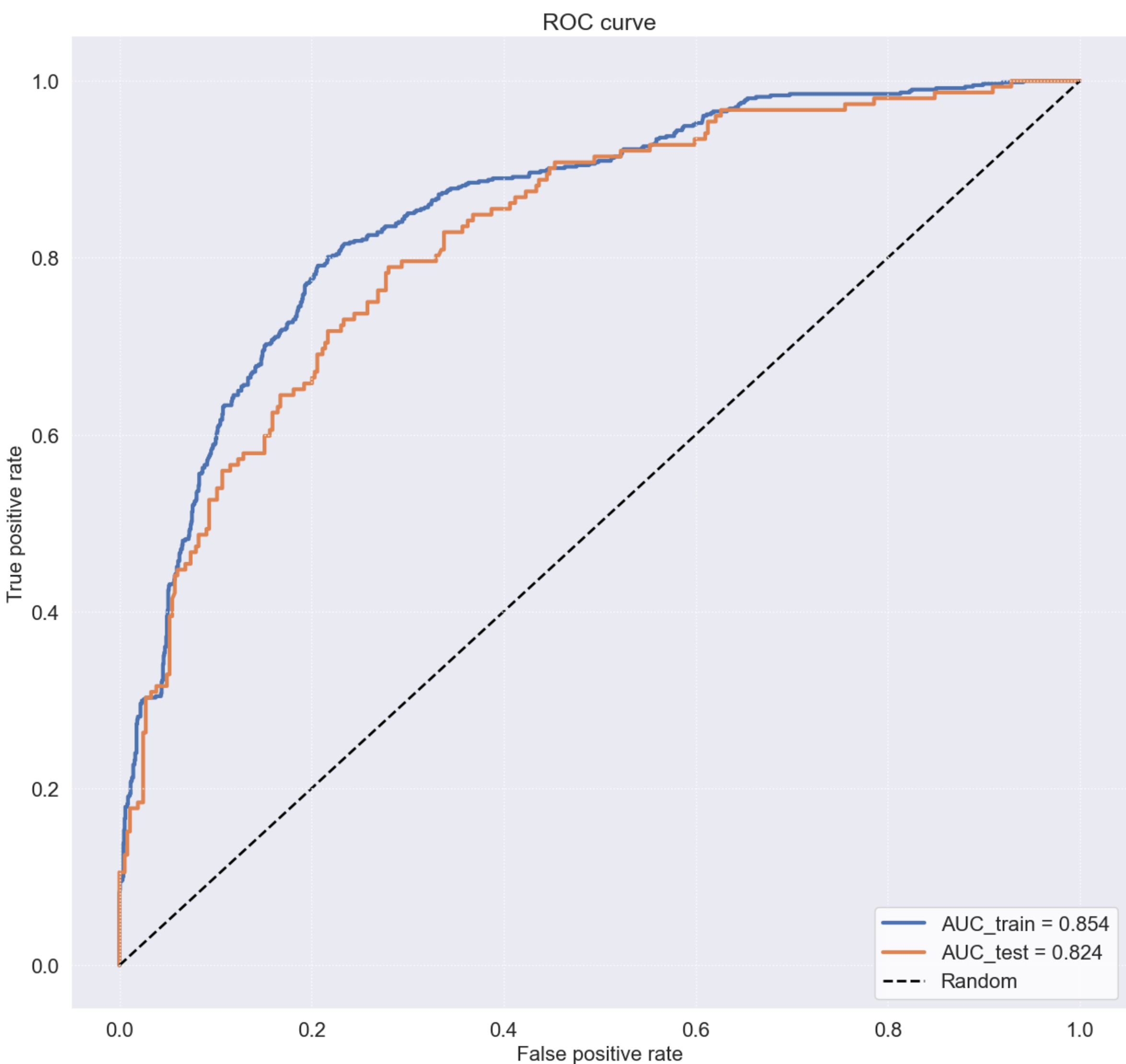
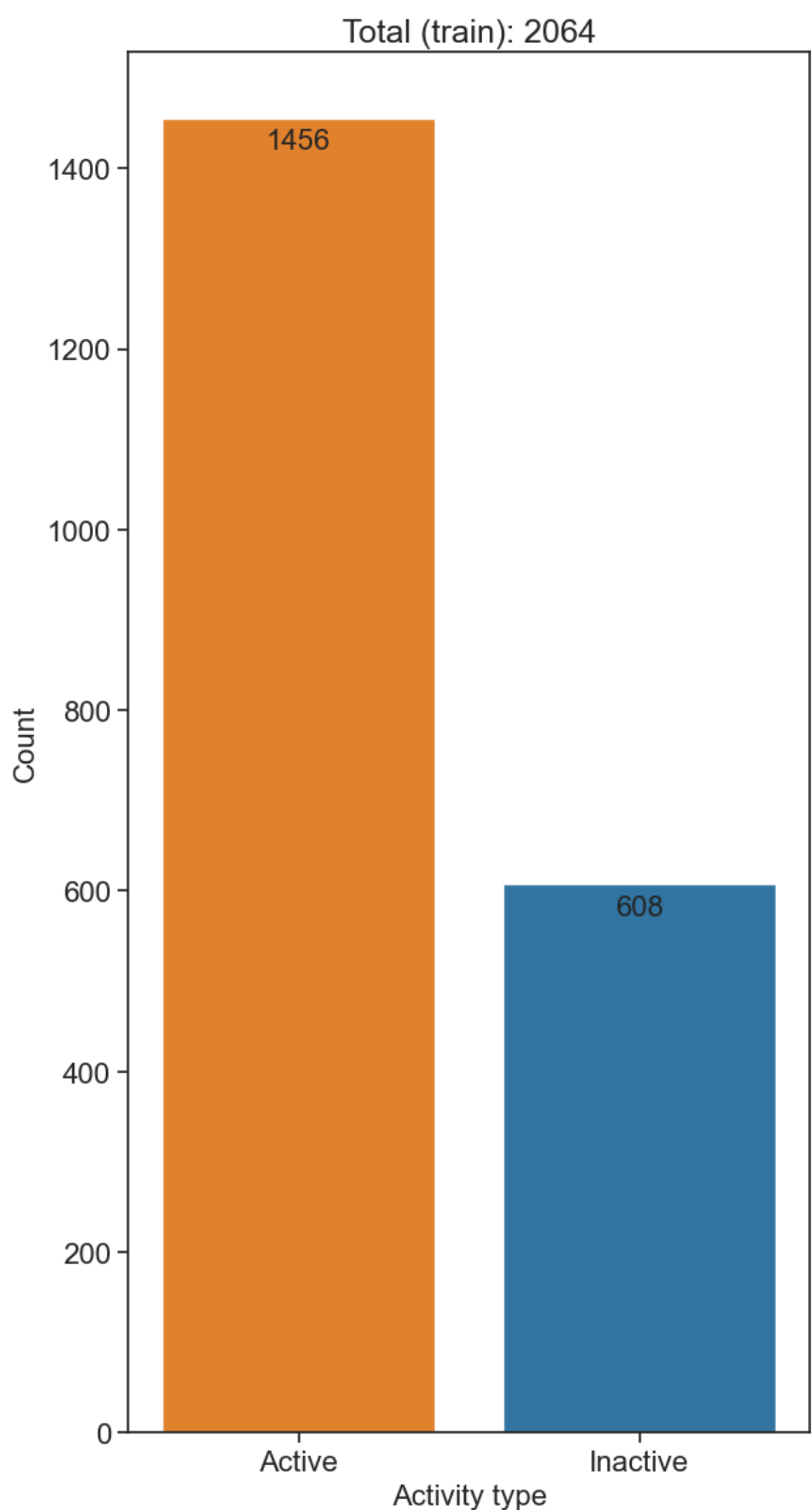


XGBoost Parameters	Value
alpha	3.1881
colsample_bytree	0.6624
gamma	0.2534
lambda	2.8352
learning_rate	0.0411
max_depth	10.0
min_child_weight	1.0
n_estimators	621.0
reg_alpha	0.1707
reg_lambda	0.9988
scale_pos_weight	2.6041
subsample	0.5098

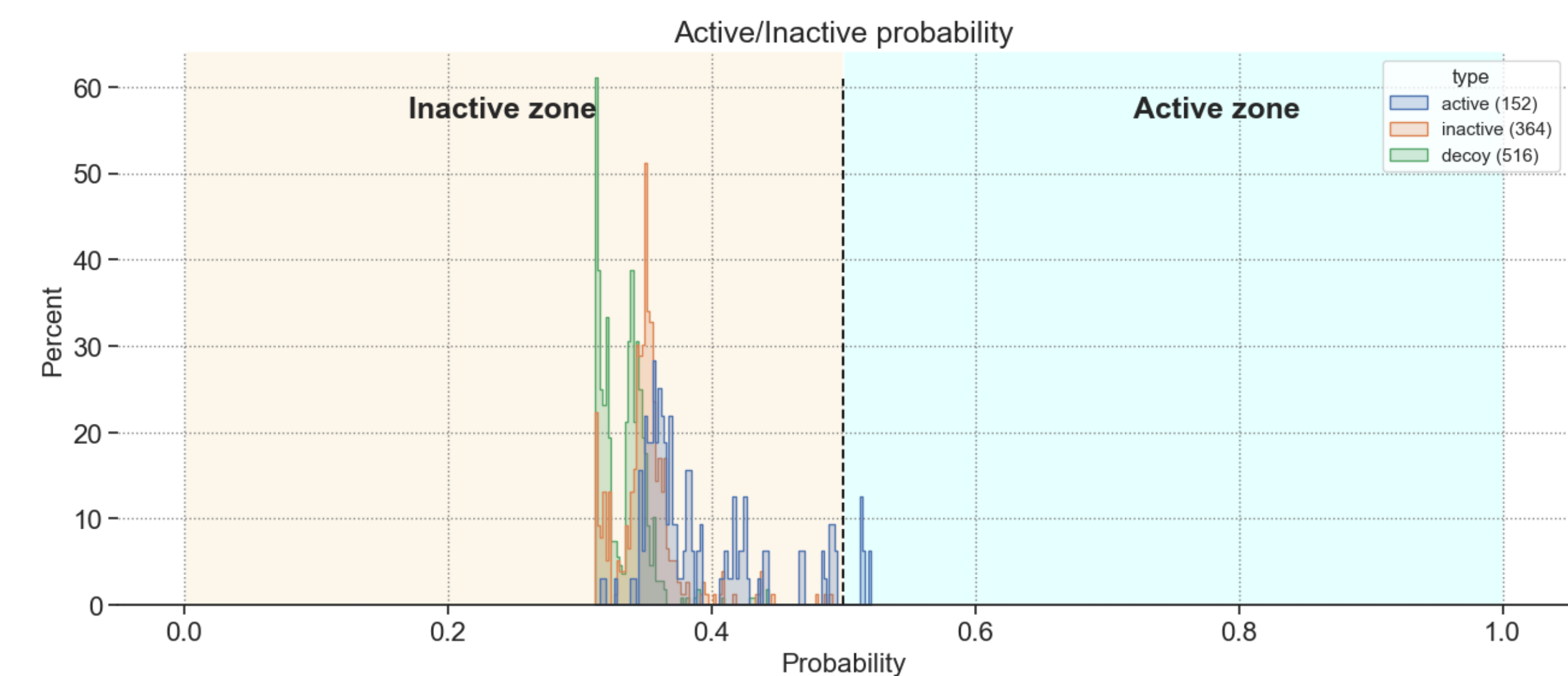
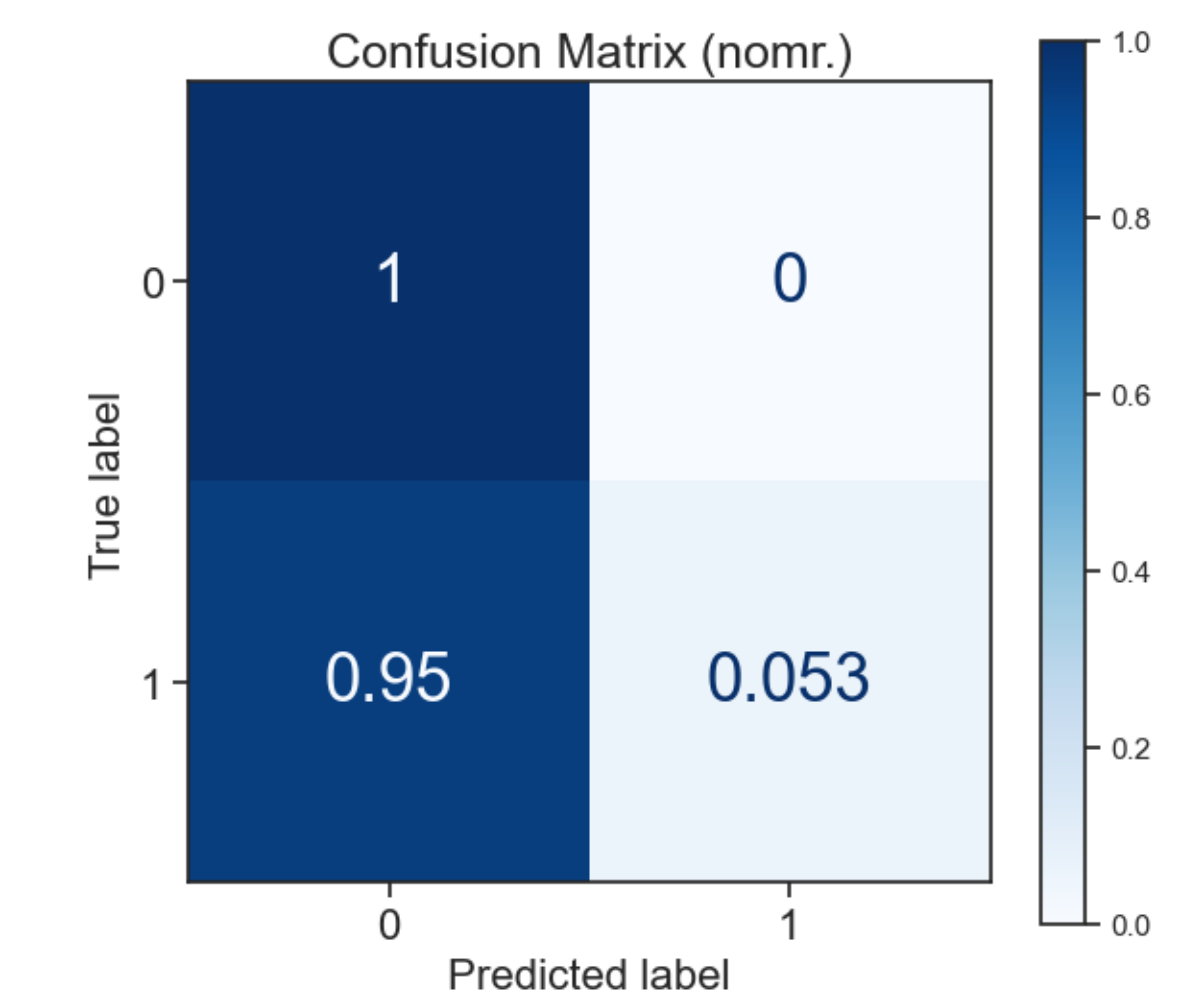
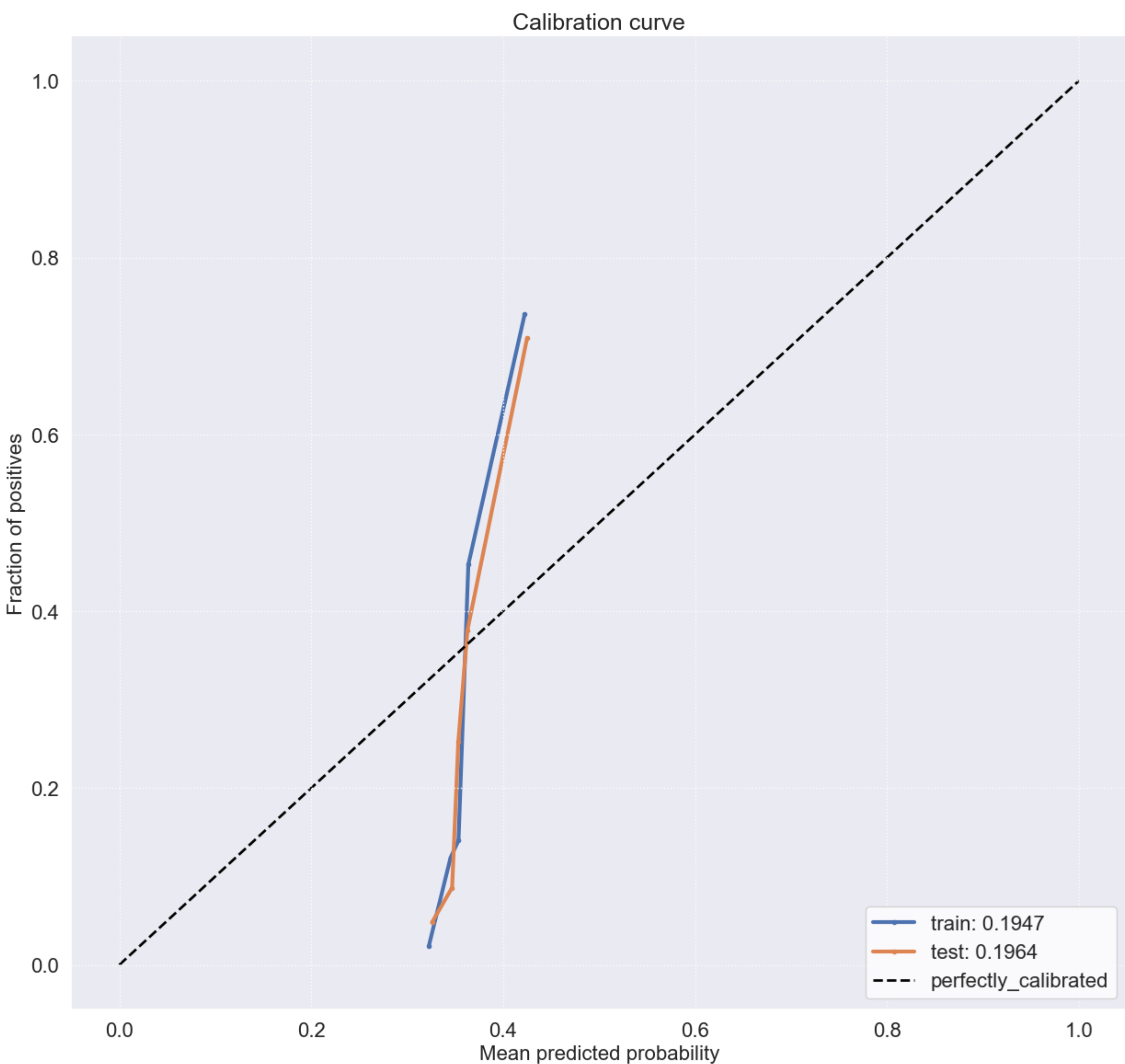
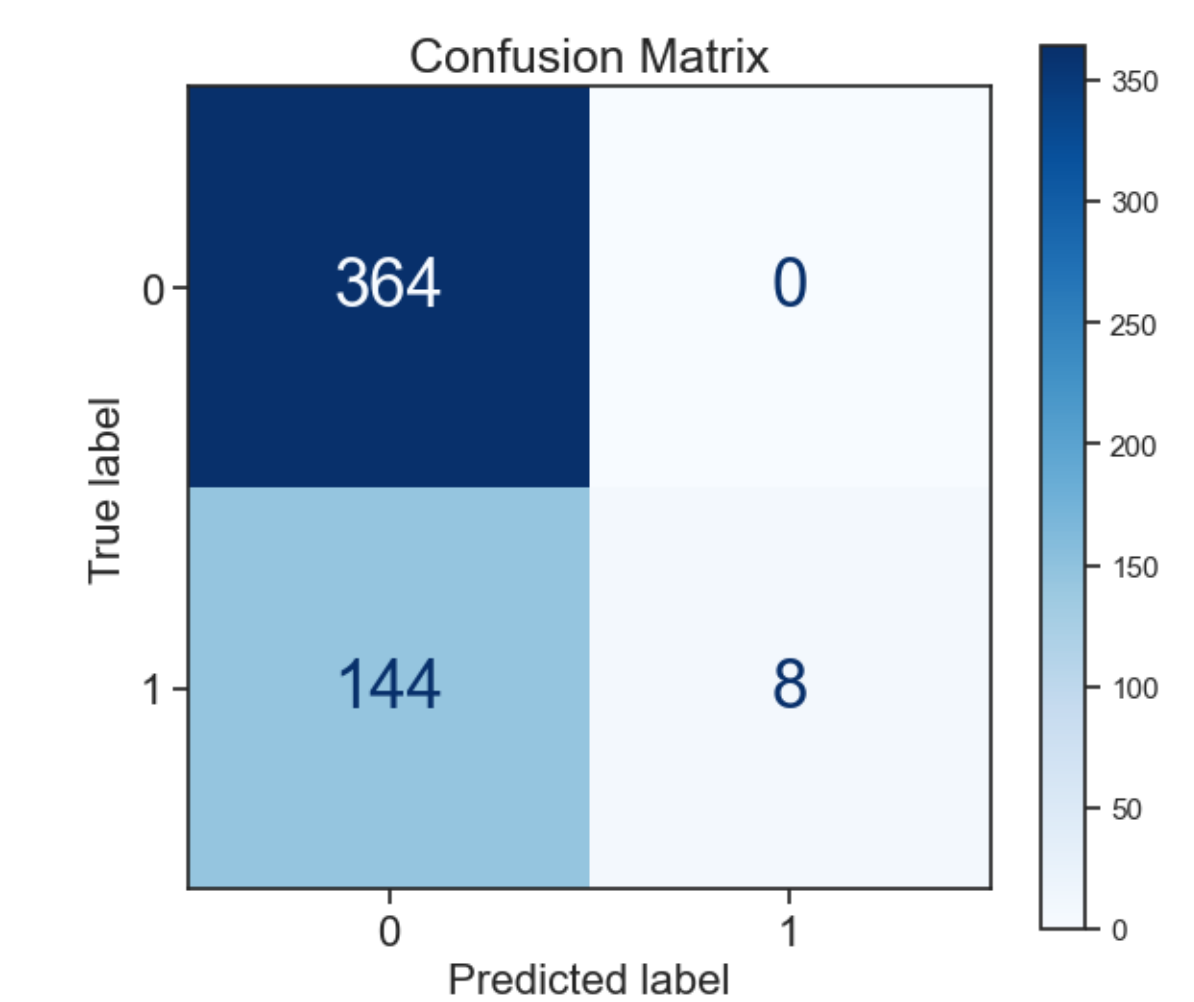


Metric	Train	Test
AUC	1.0	0.9424
accuracy	0.9966	0.907
balanced accuracy	0.9976	0.8804
recall_(sens)	1.0	0.8158
specificity	0.9952	0.9451
precision	0.9886	0.8611
f1_score	0.9966	0.9062

Protein: P49841- metric: precision

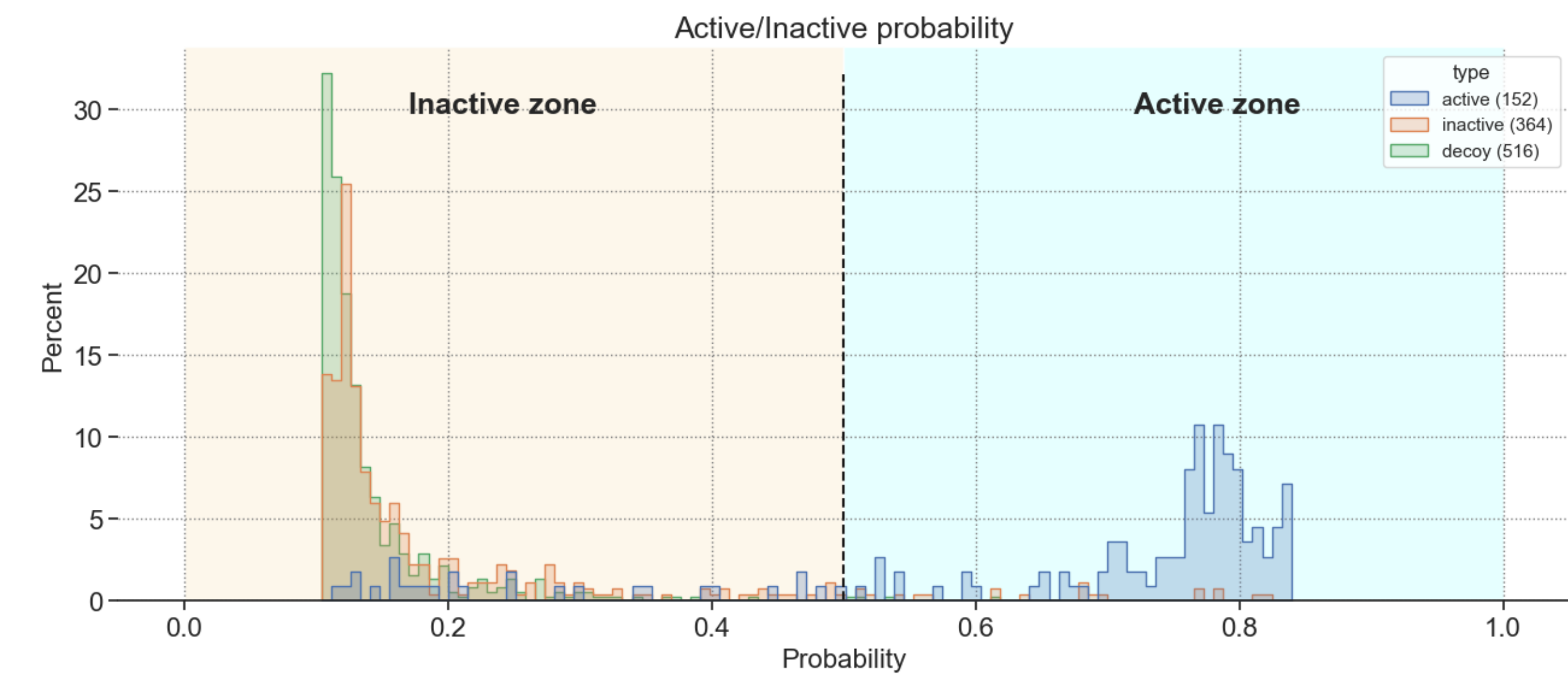
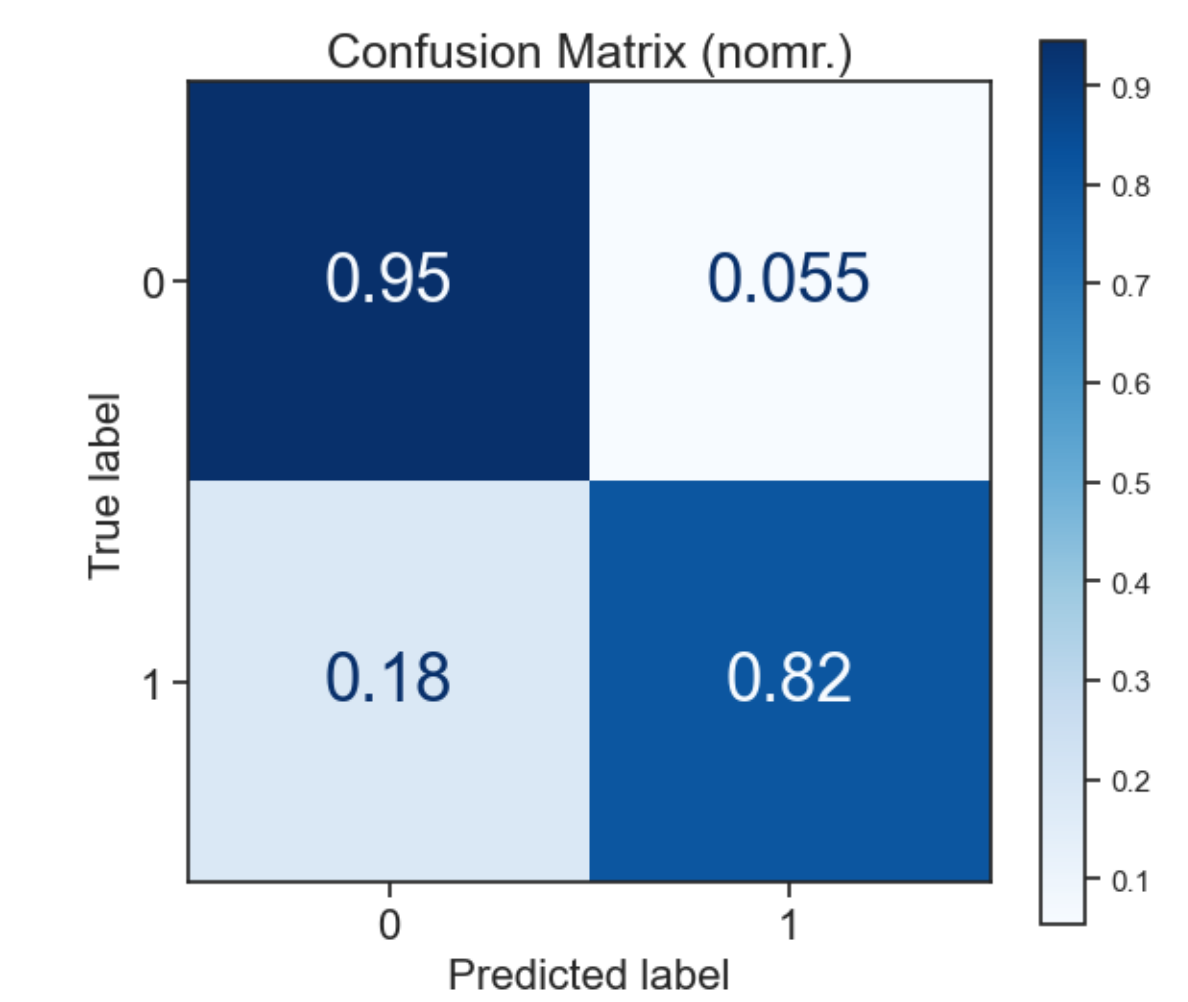
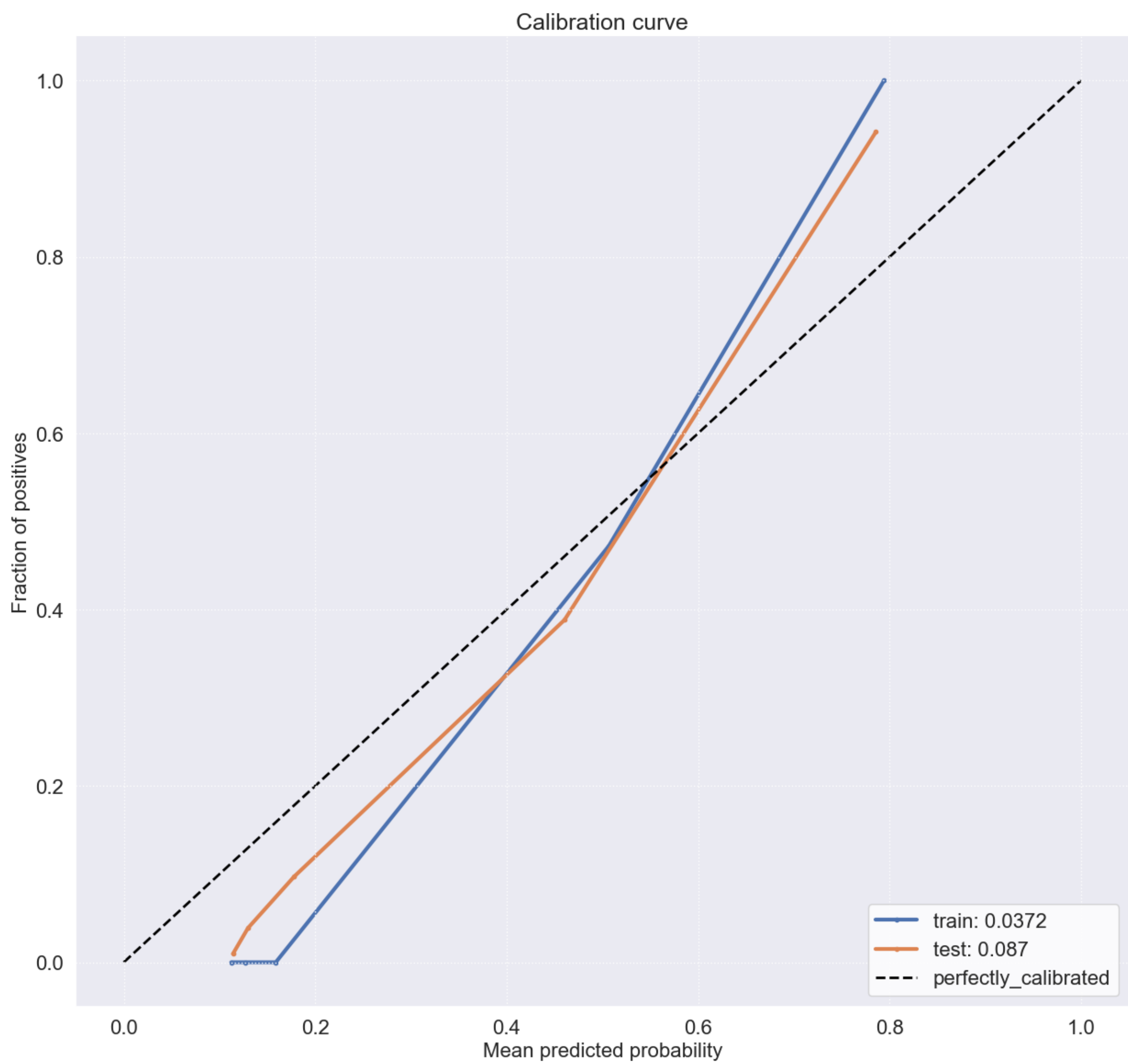
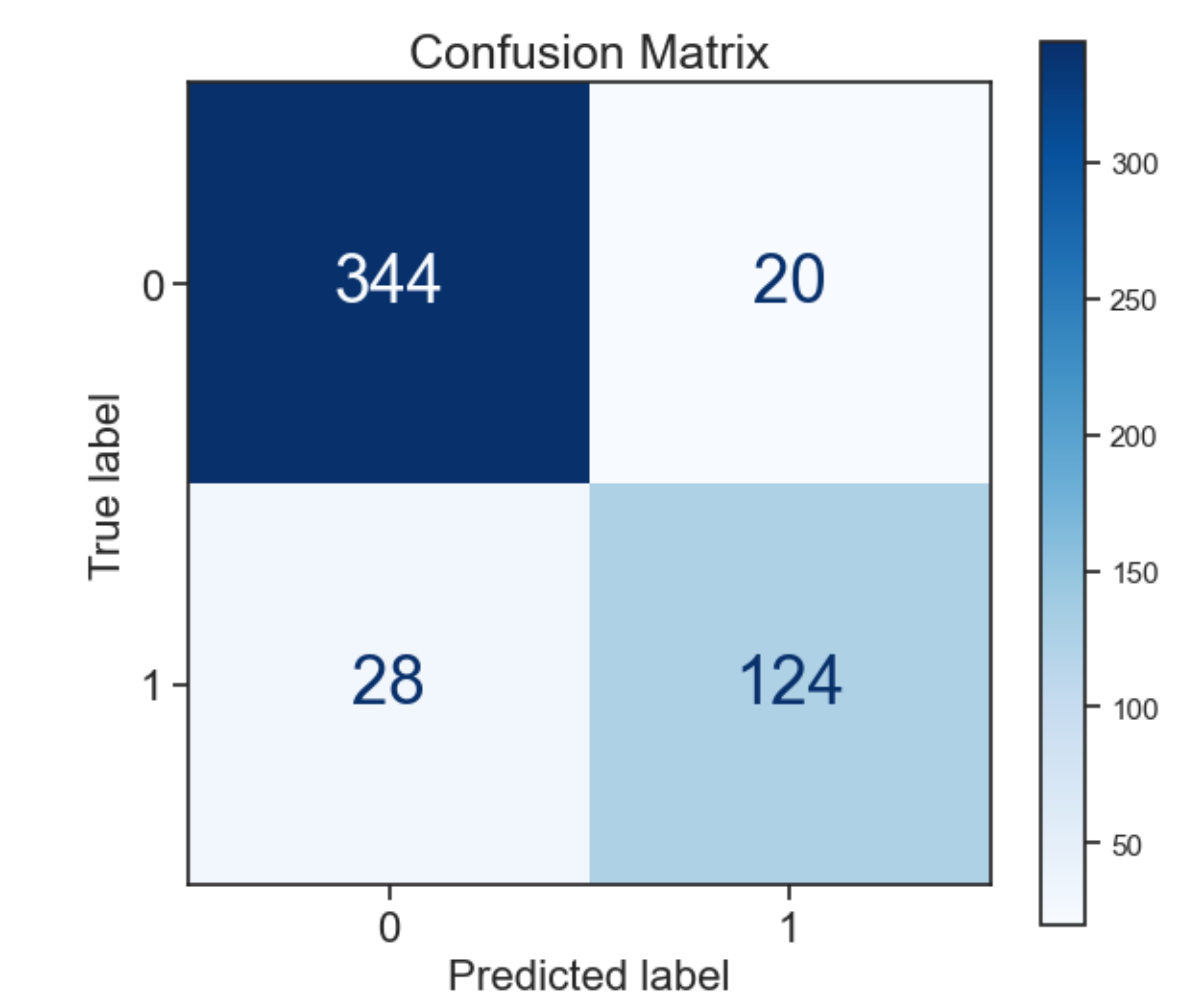
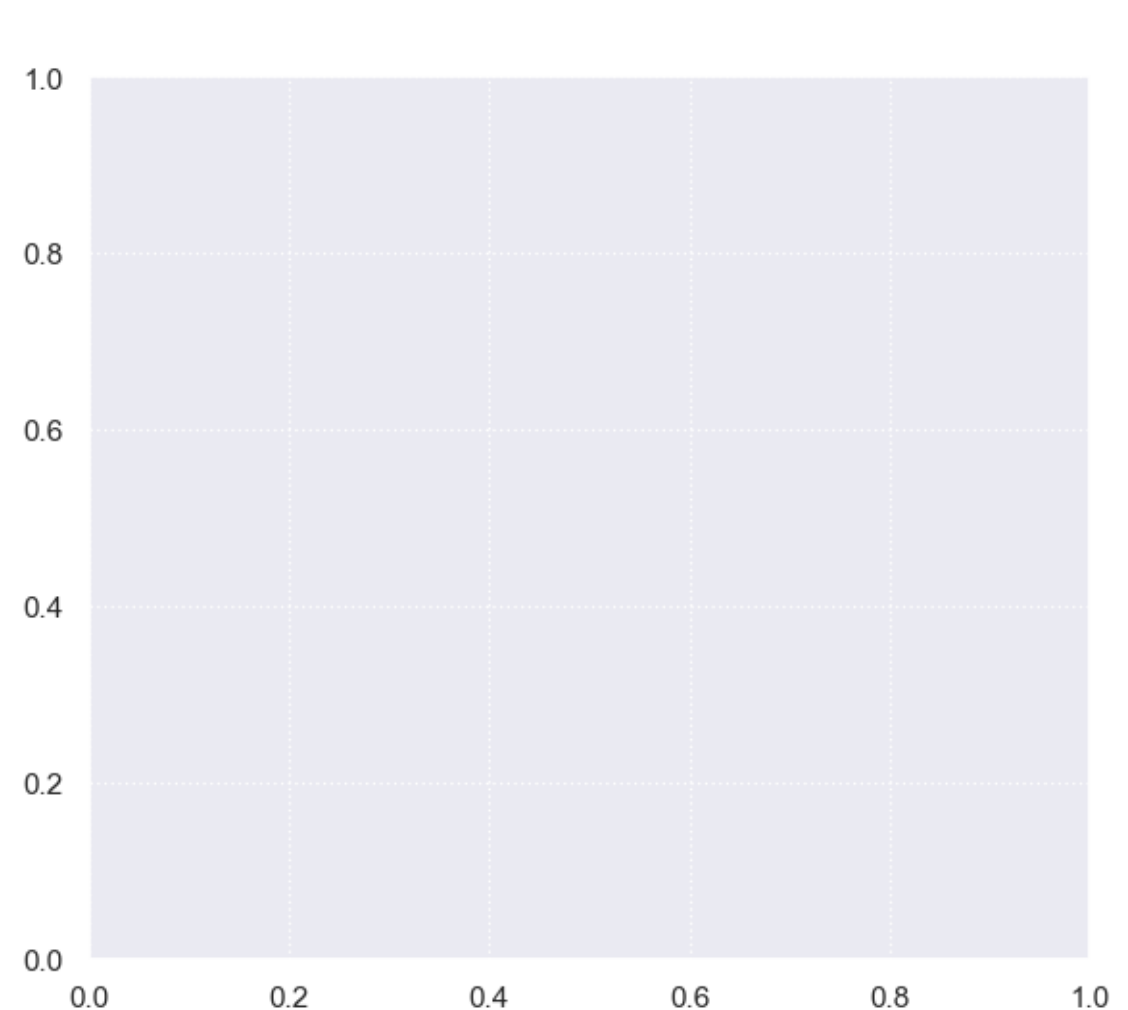
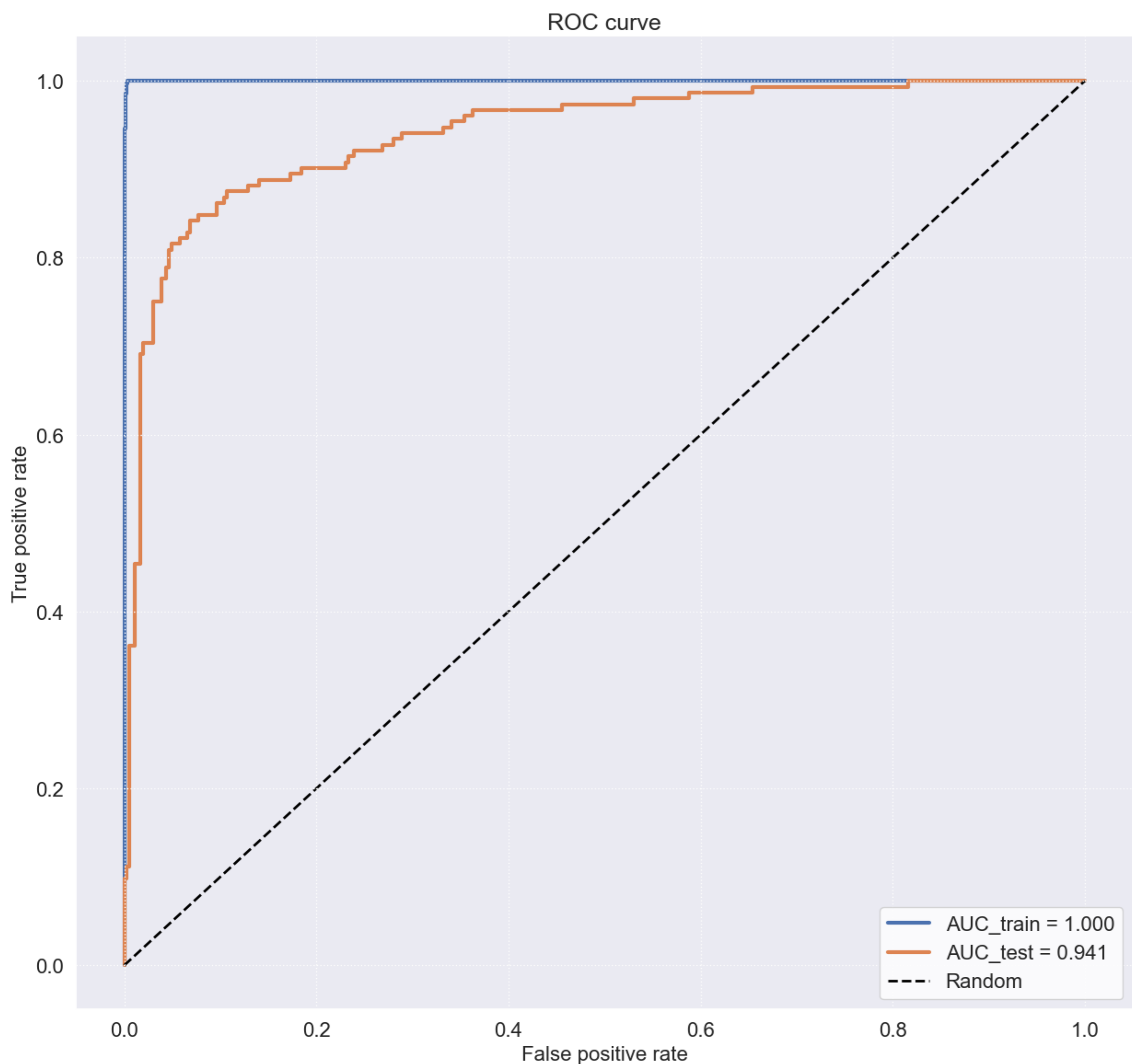
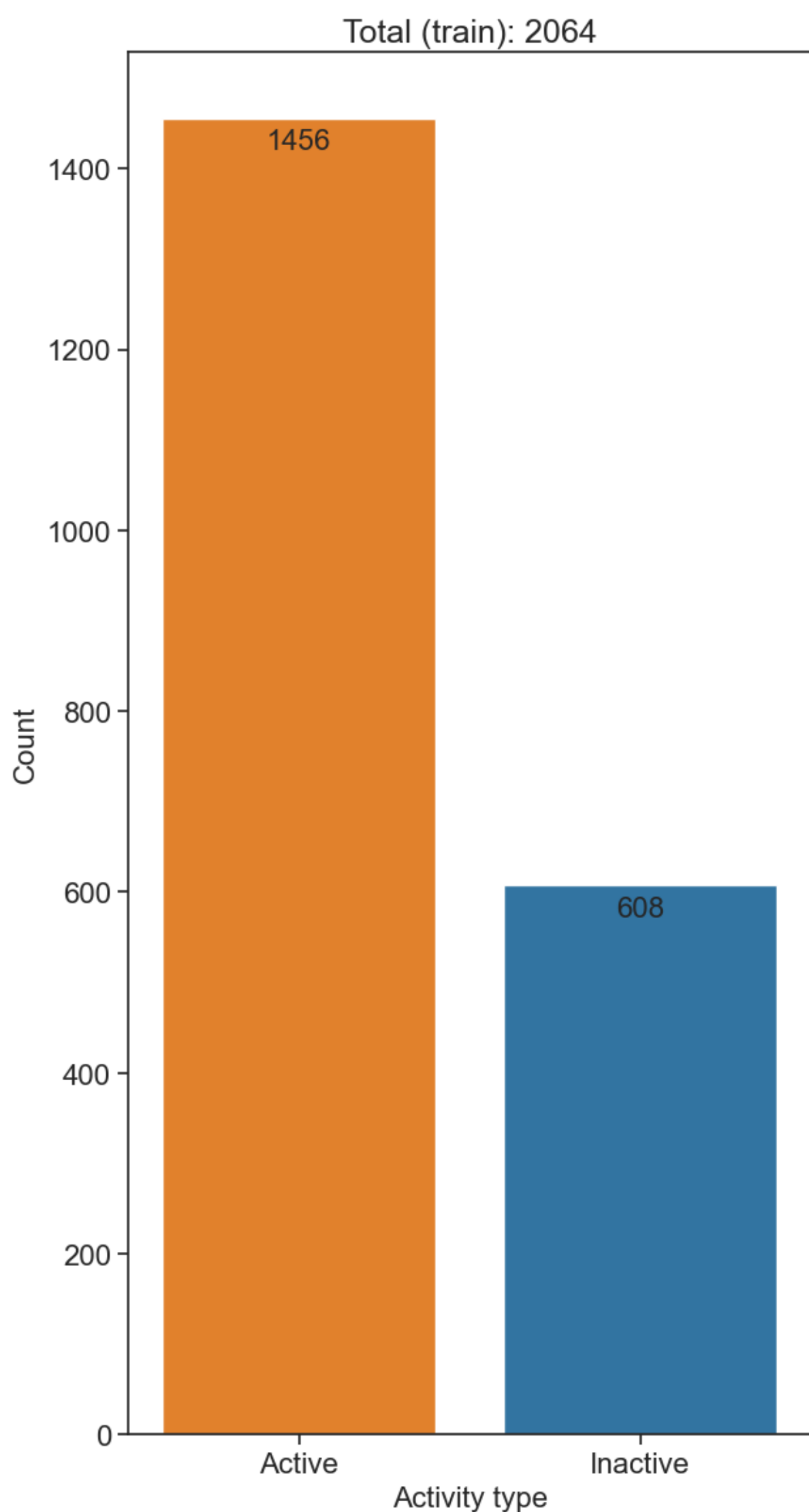


XGBoost Parameters	Value
alpha	4.4709
colsample_bytree	0.6545
gamma	0.5603
lambda	3.1748
learning_rate	0.0006
max_depth	3.0
min_child_weight	4.0
n_estimators	577.0
reg_alpha	0.8746
reg_lambda	0.8165
scale_pos_weight	1.3701
subsample	0.5263



Metric	Train	Test
AUC	0.854	0.8241
accuracy	0.7209	0.7209
balanced accuracy	0.5263	0.5263
recall_(sens)	0.0526	0.0526
specificity	1.0	1.0
precision	1.0	1.0
f1_score	0.6184	0.6184

Protein: P49841 - metric: SoftVotingXGBoostEnsemble



Metric	Train	Test
AUC	0.9998	0.9409
accuracy	0.9922	0.907
balanced accuracy	0.9945	0.8804
recall_(sens)	1.0	0.8158
specificity	0.989	0.9451
precision	0.9744	0.8611
f1_score	0.9923	0.9062