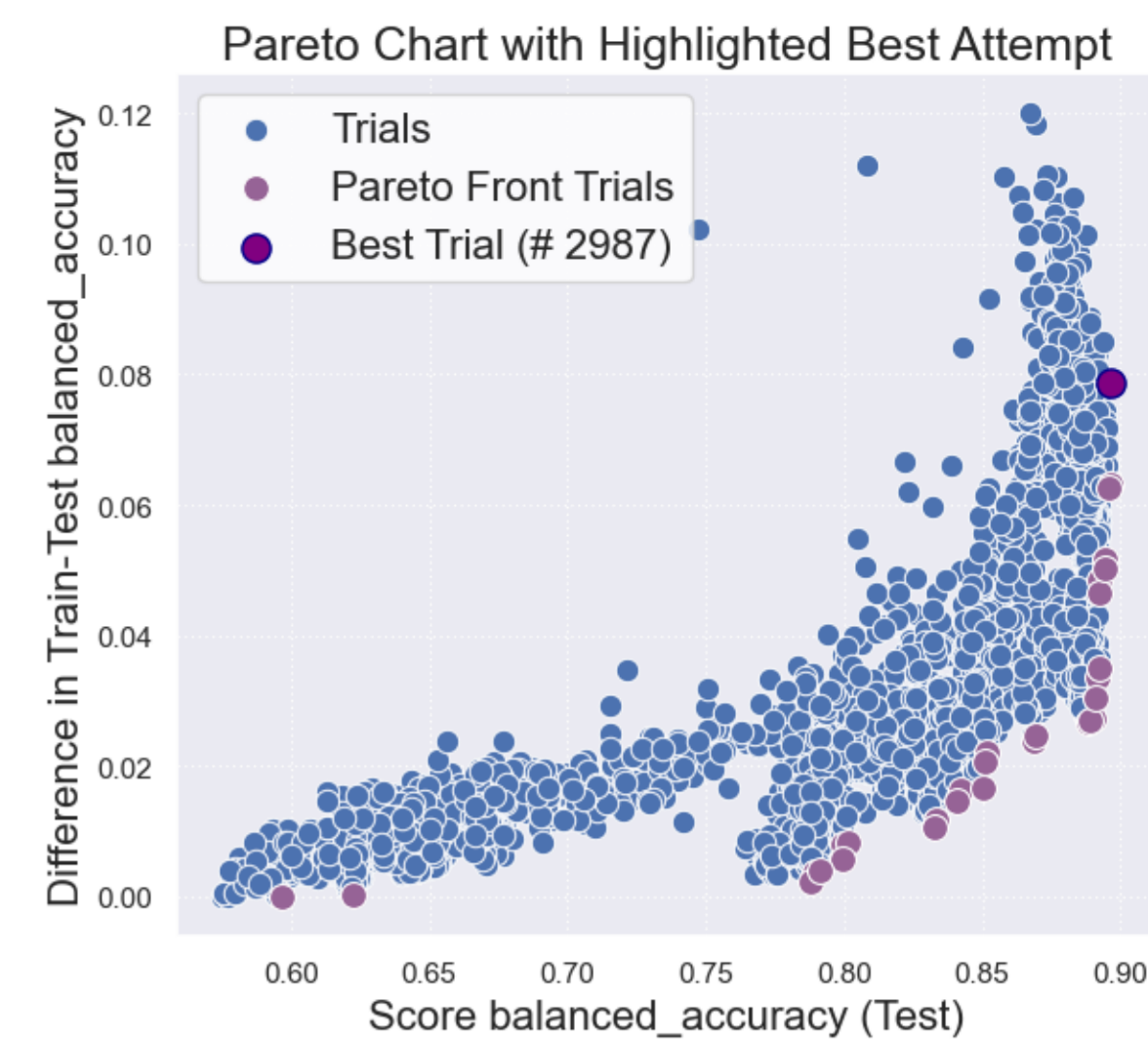
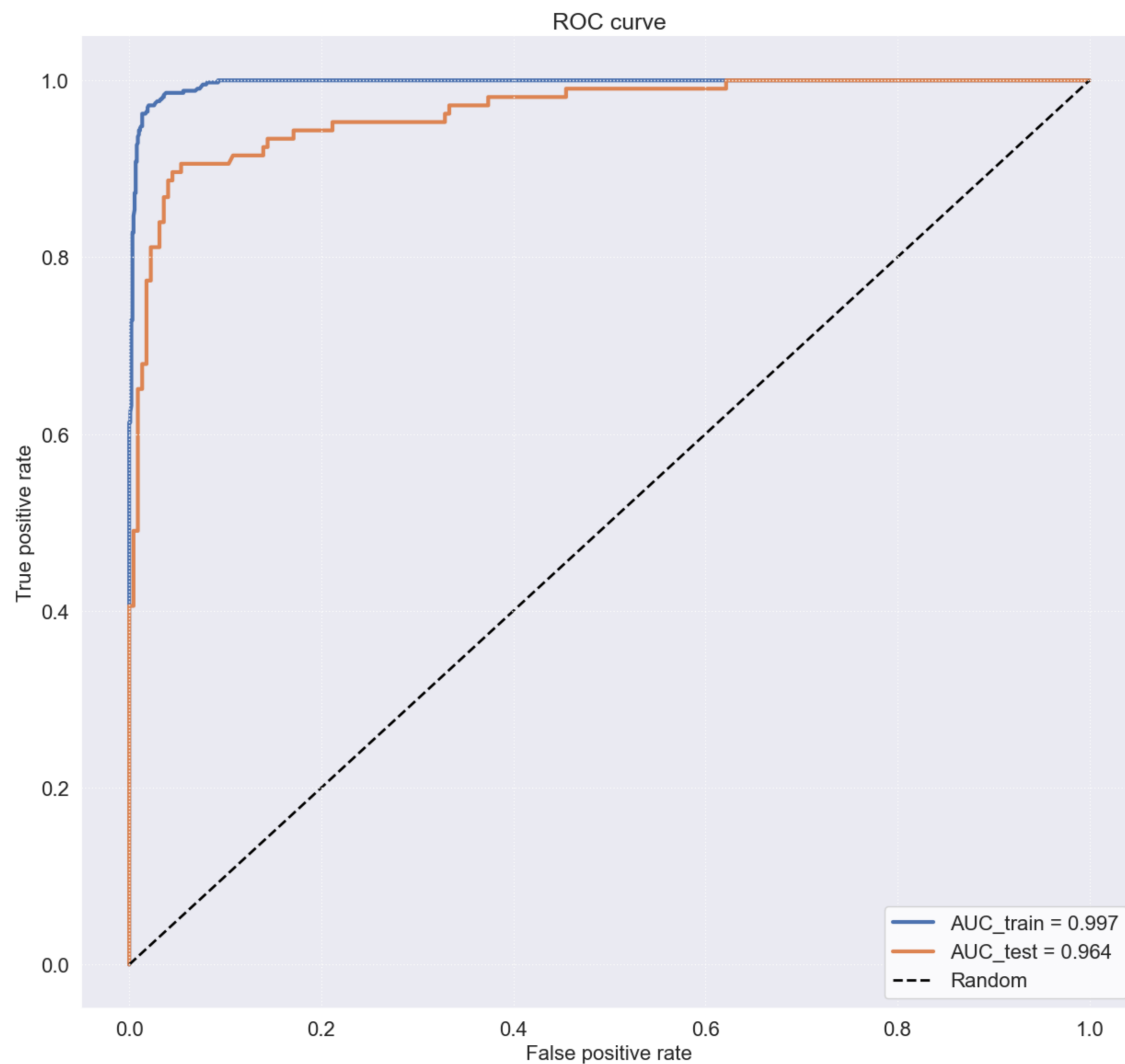
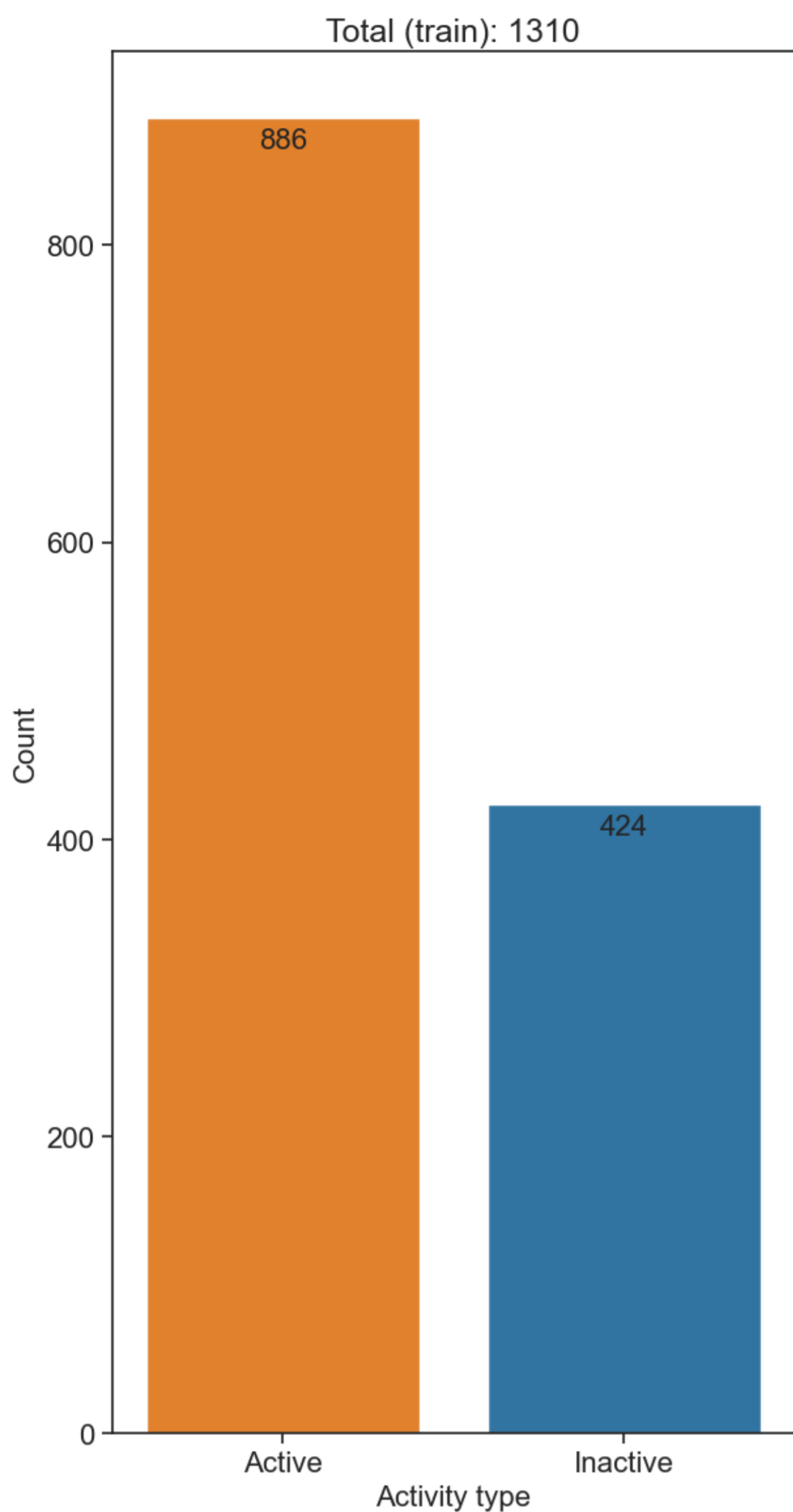
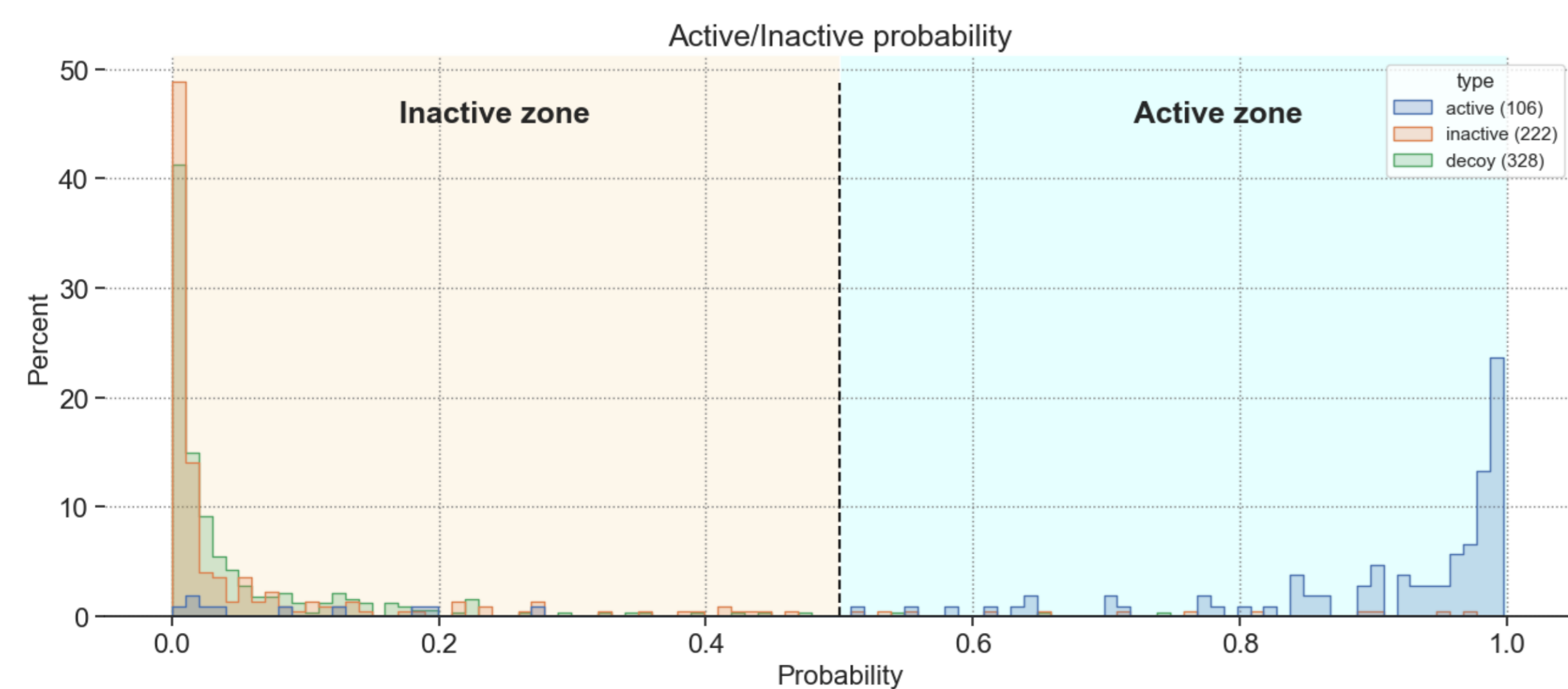
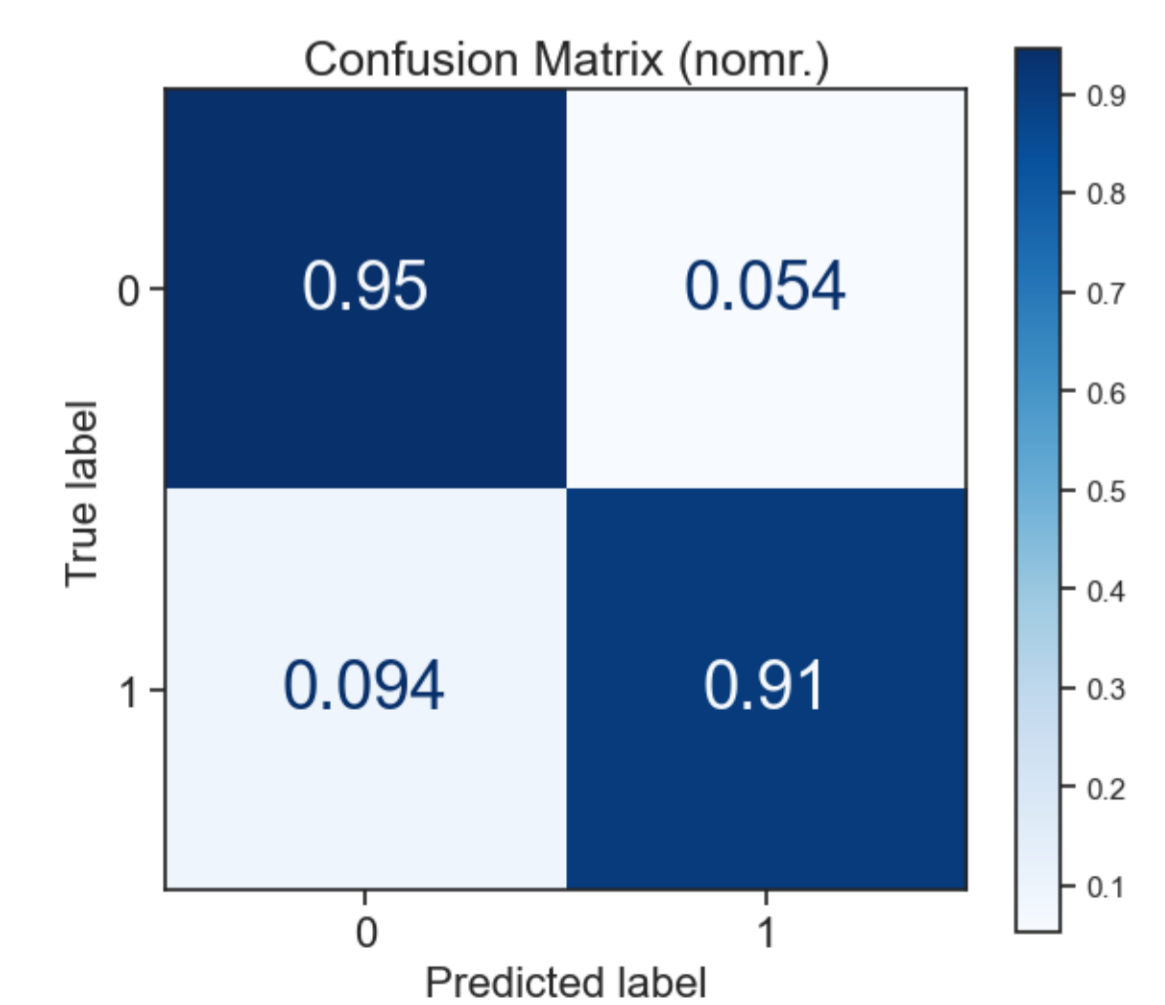
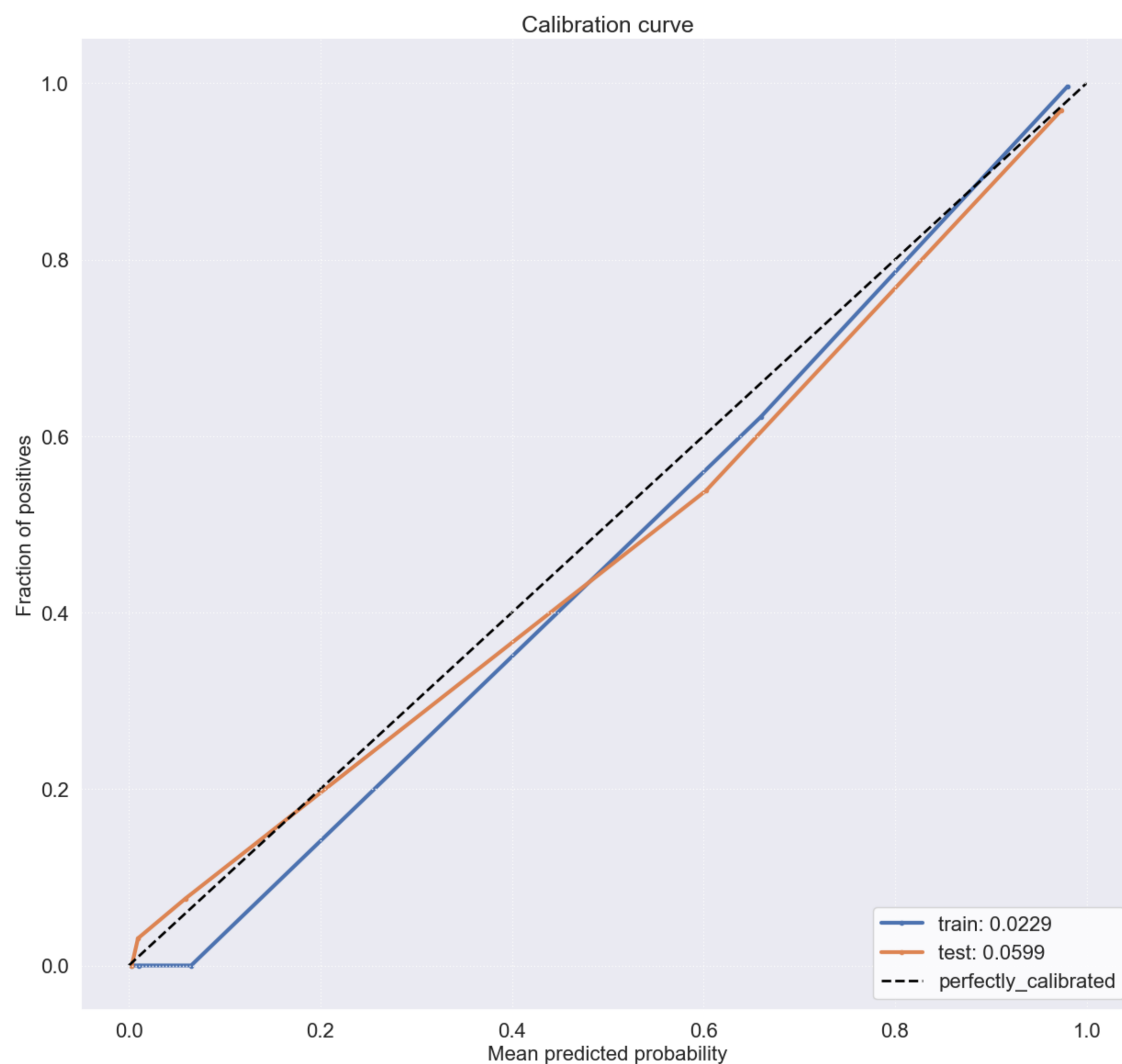
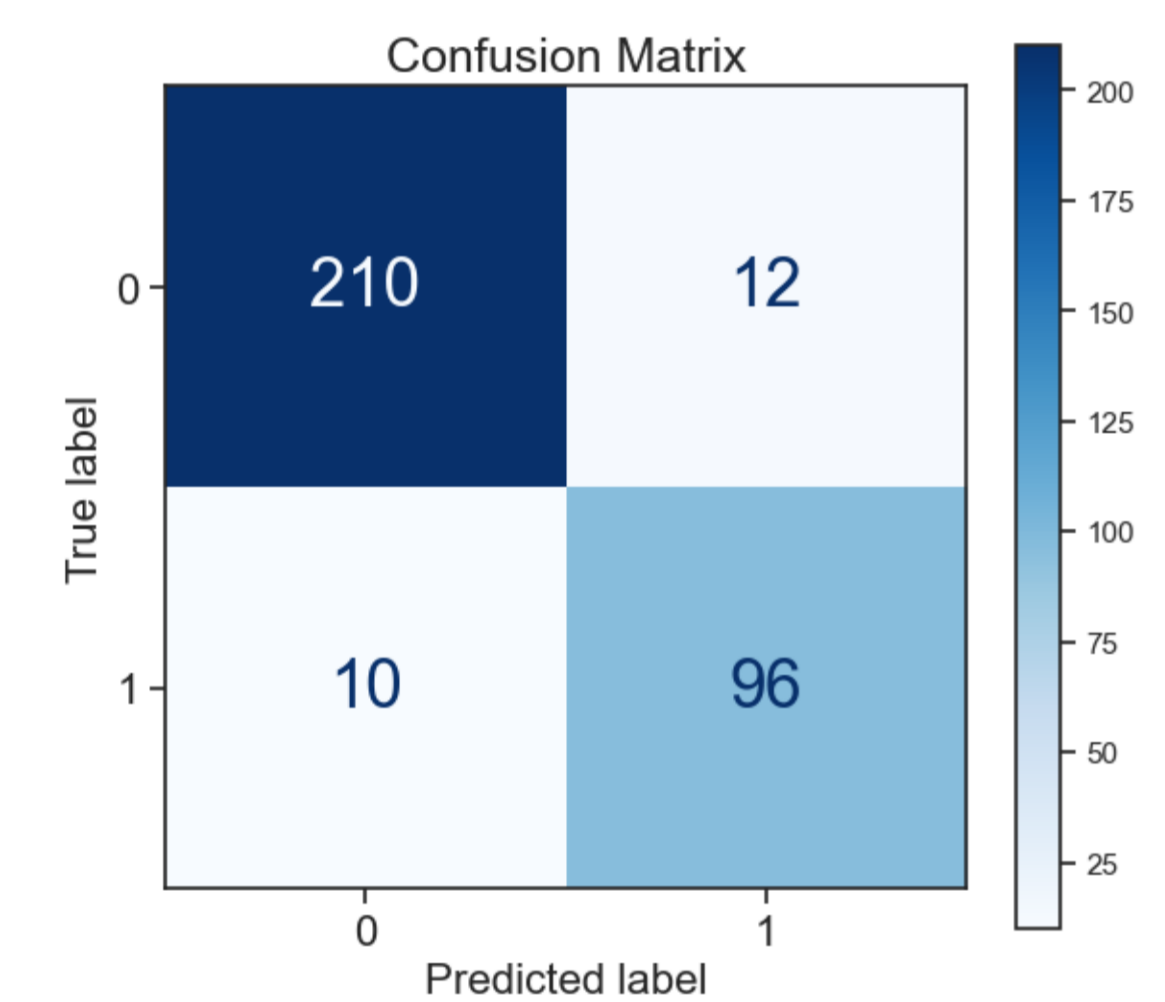


Protein: Q96BI3 - metric: balanced_accuracy

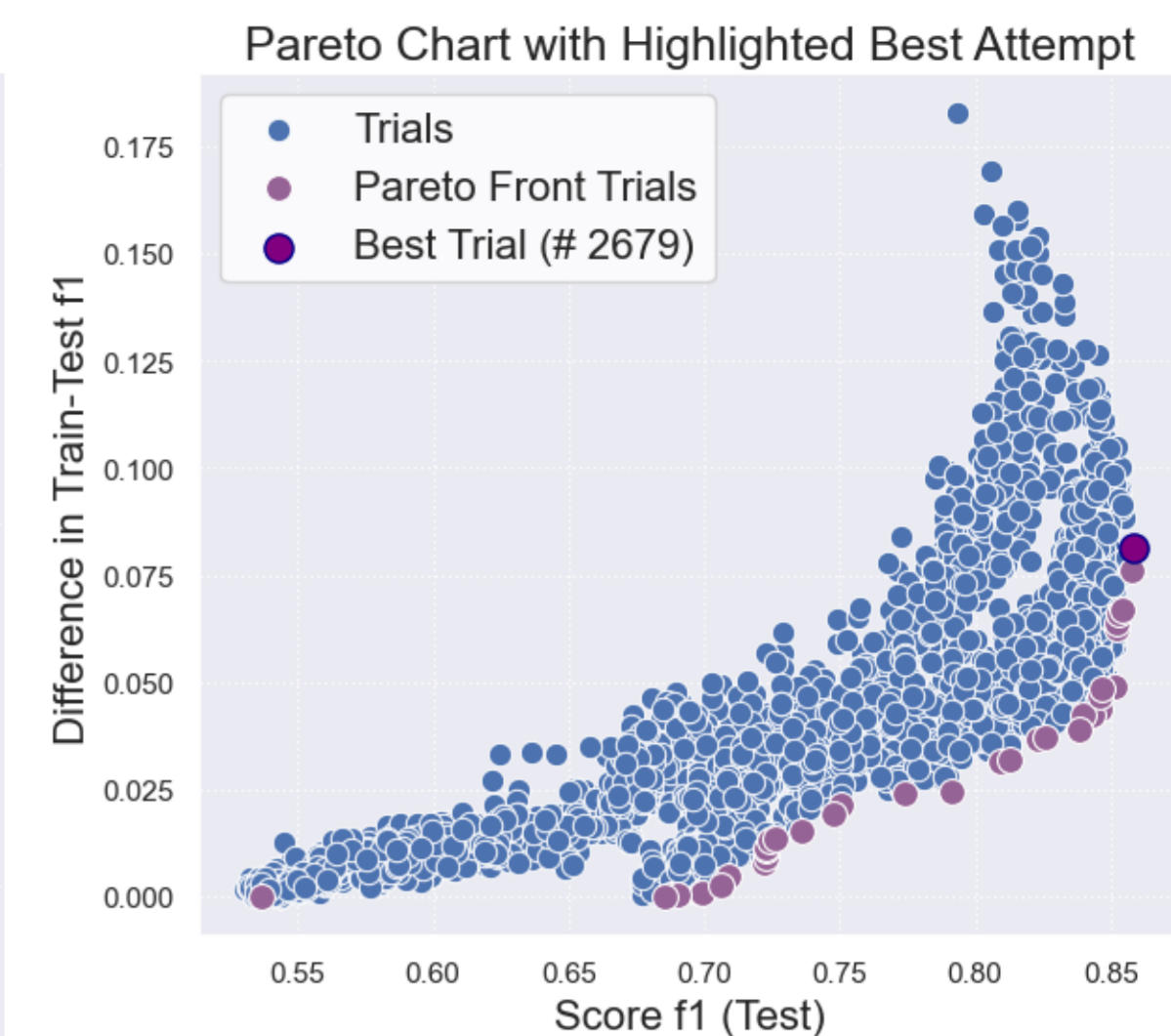
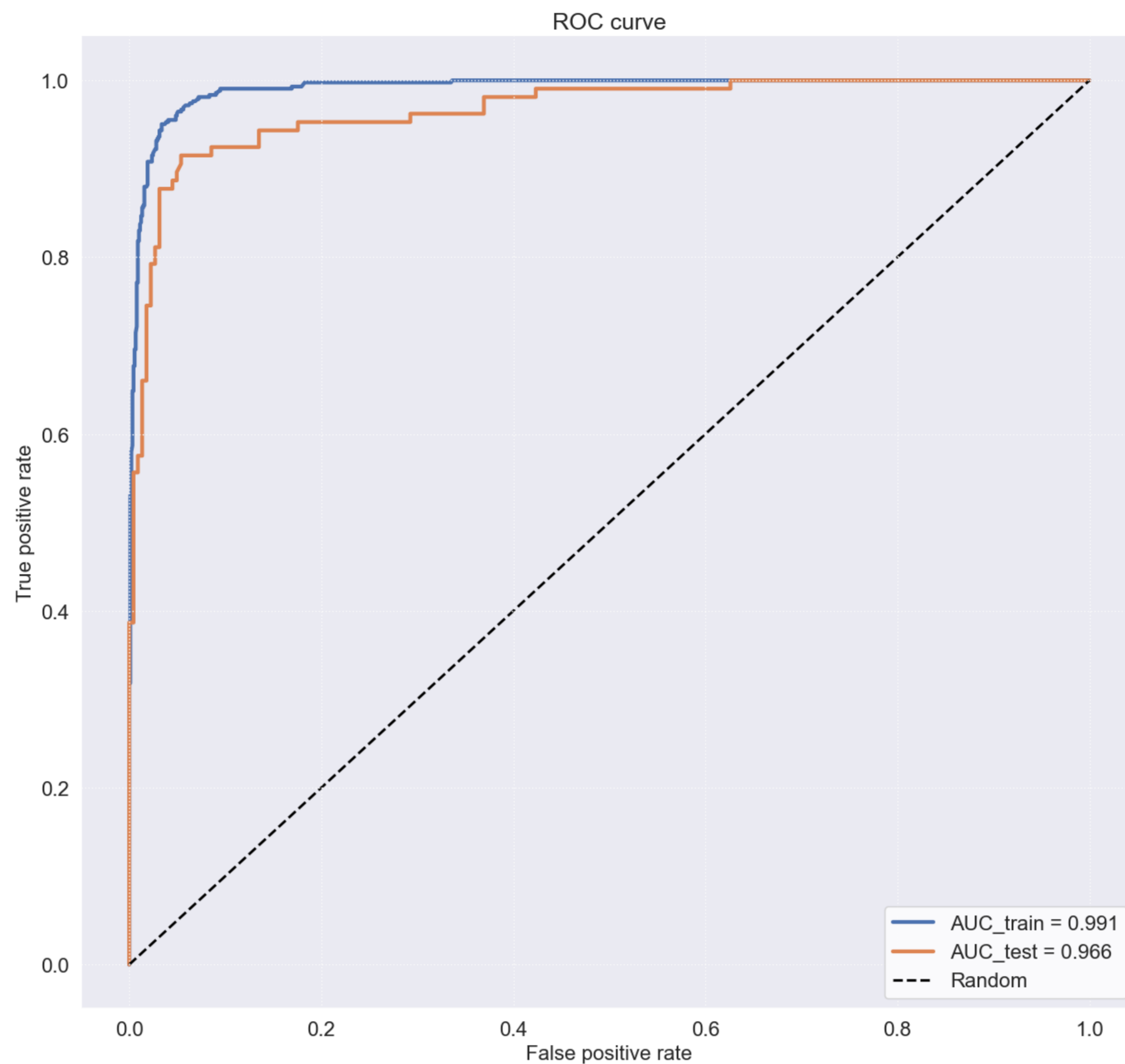
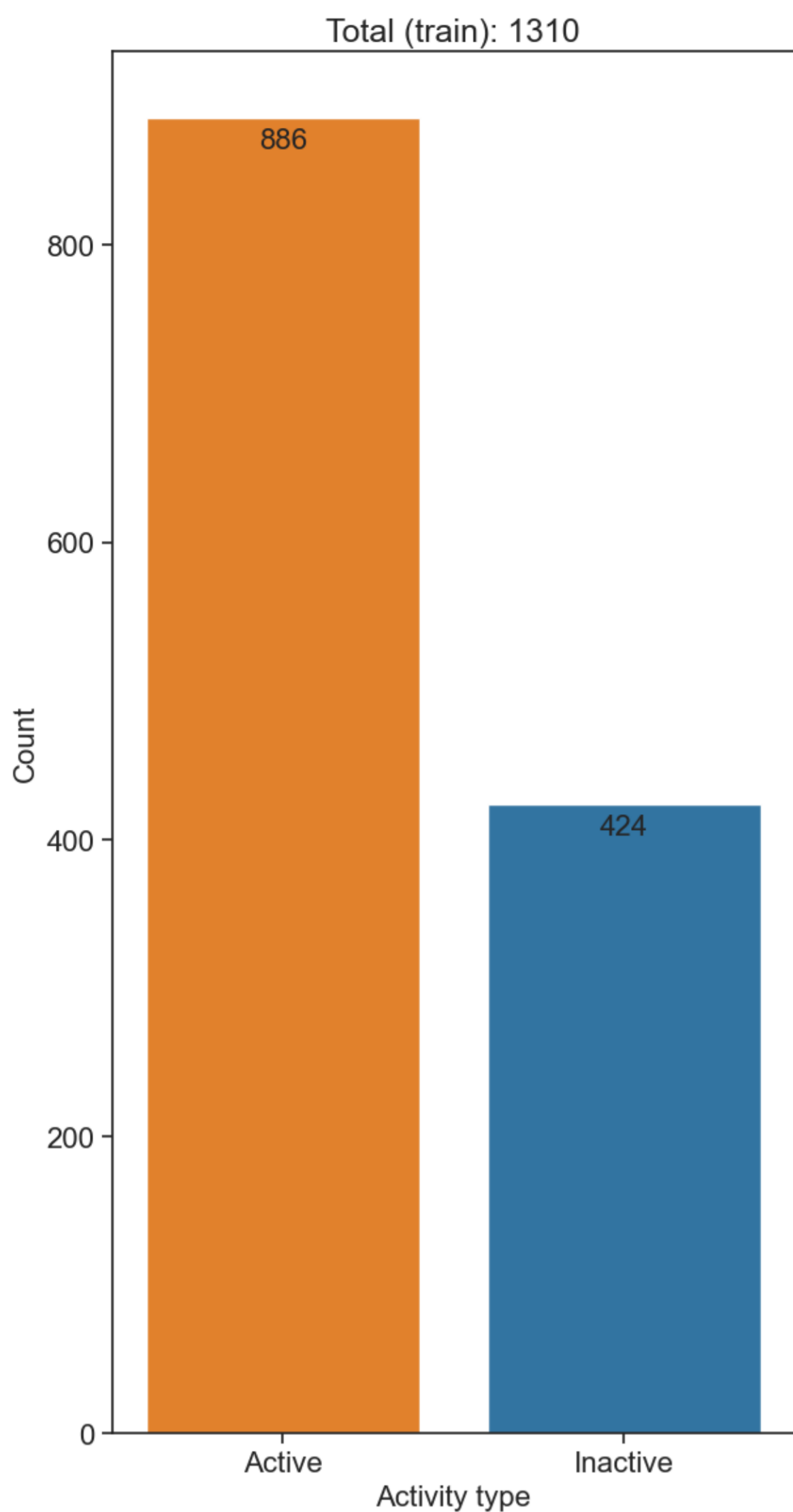


XGBoost Parameters	Value
alpha	2.171
colsample_bytree	0.6674
gamma	0.7971
lambda	1.075
learning_rate	0.1643
max_depth	8.0
min_child_weight	1.0
n_estimators	393.0
reg_alpha	0.8448
reg_lambda	0.2158
scale_pos_weight	1.7997
subsample	0.7801

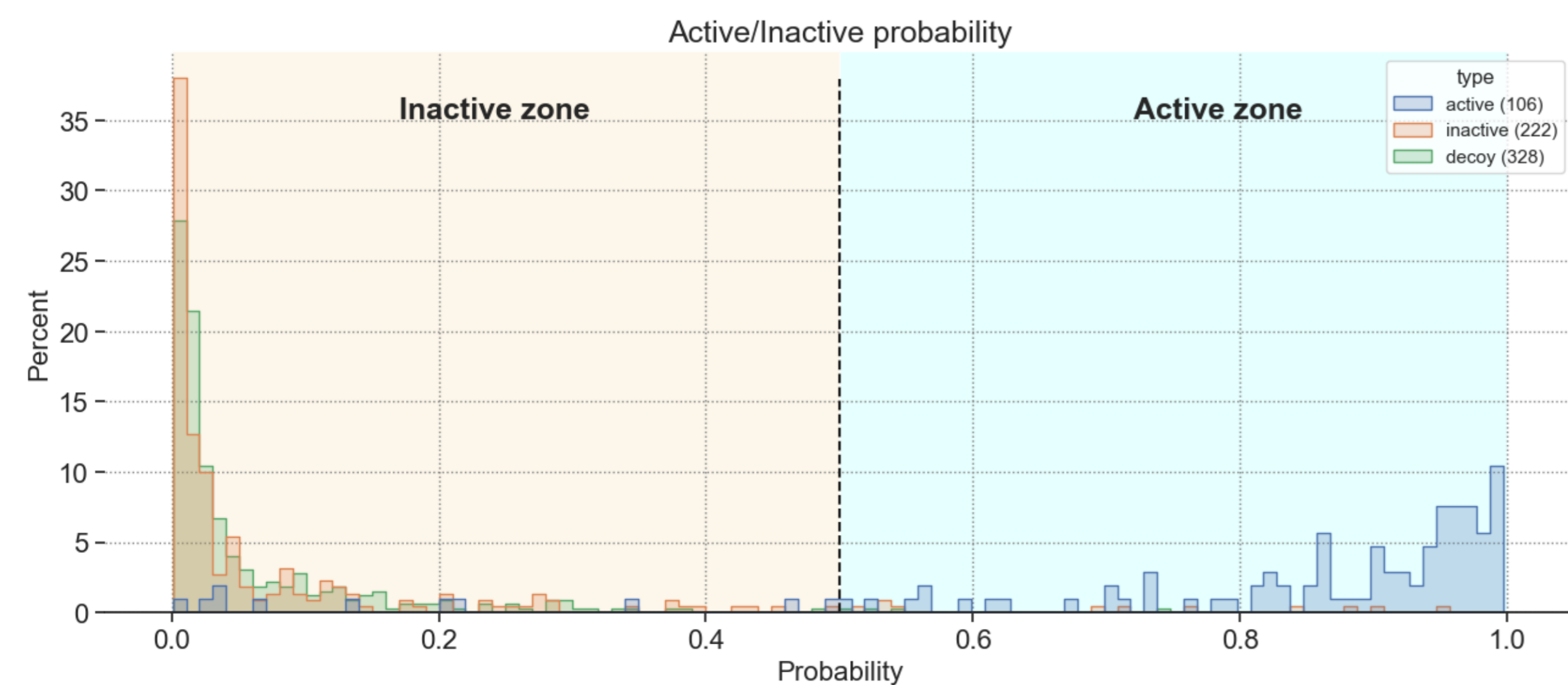
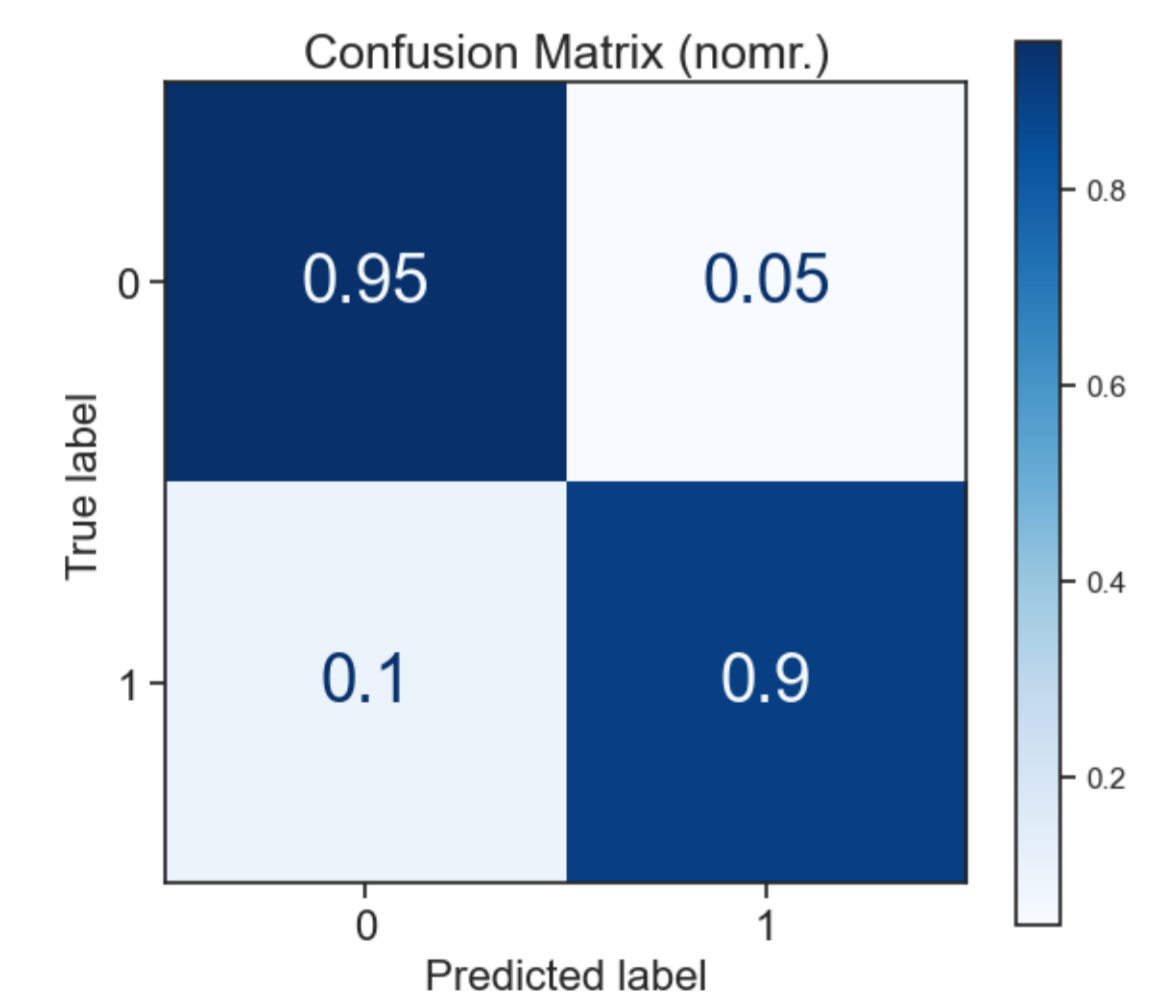
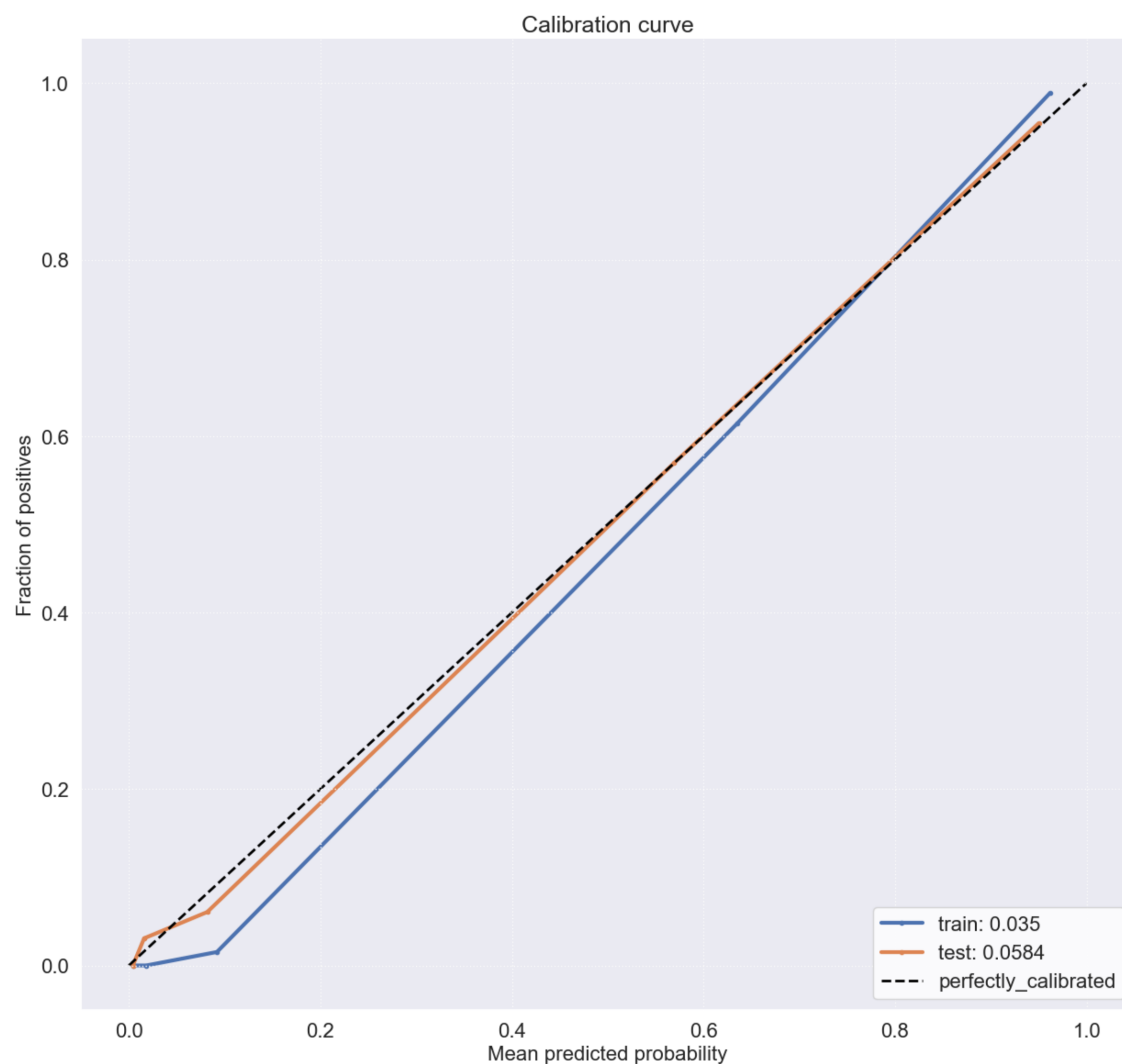
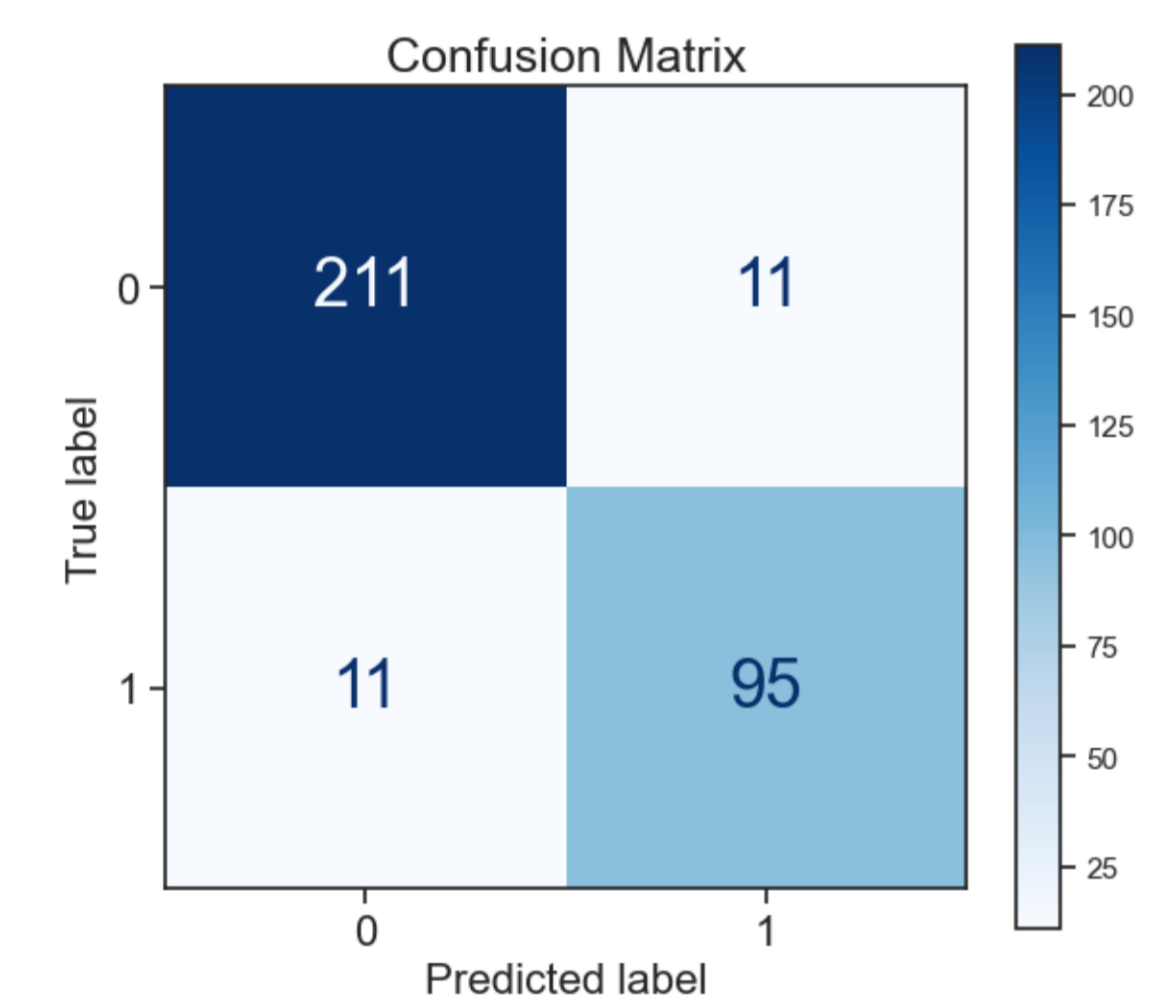


Metric	Train	Test
AUC	0.9967	0.9644
accuracy	0.9702	0.9329
balanced accuracy	0.9731	0.9258
recall_(sens)	0.9811	0.9057
specificity	0.965	0.9459
precision	0.9306	0.8889
f1_score	0.9704	0.9331

Protein: Q96BI3 - metric: f1

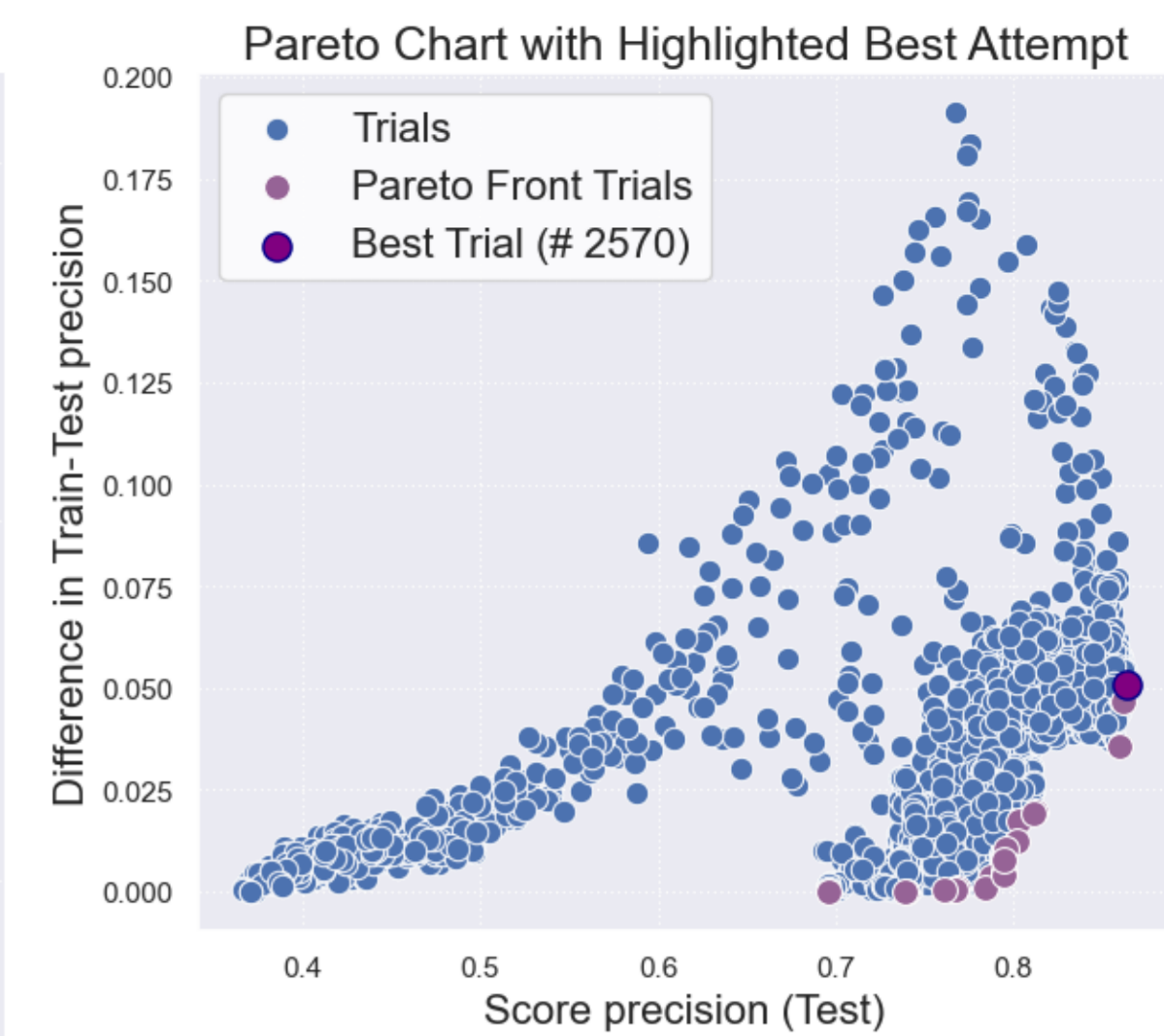
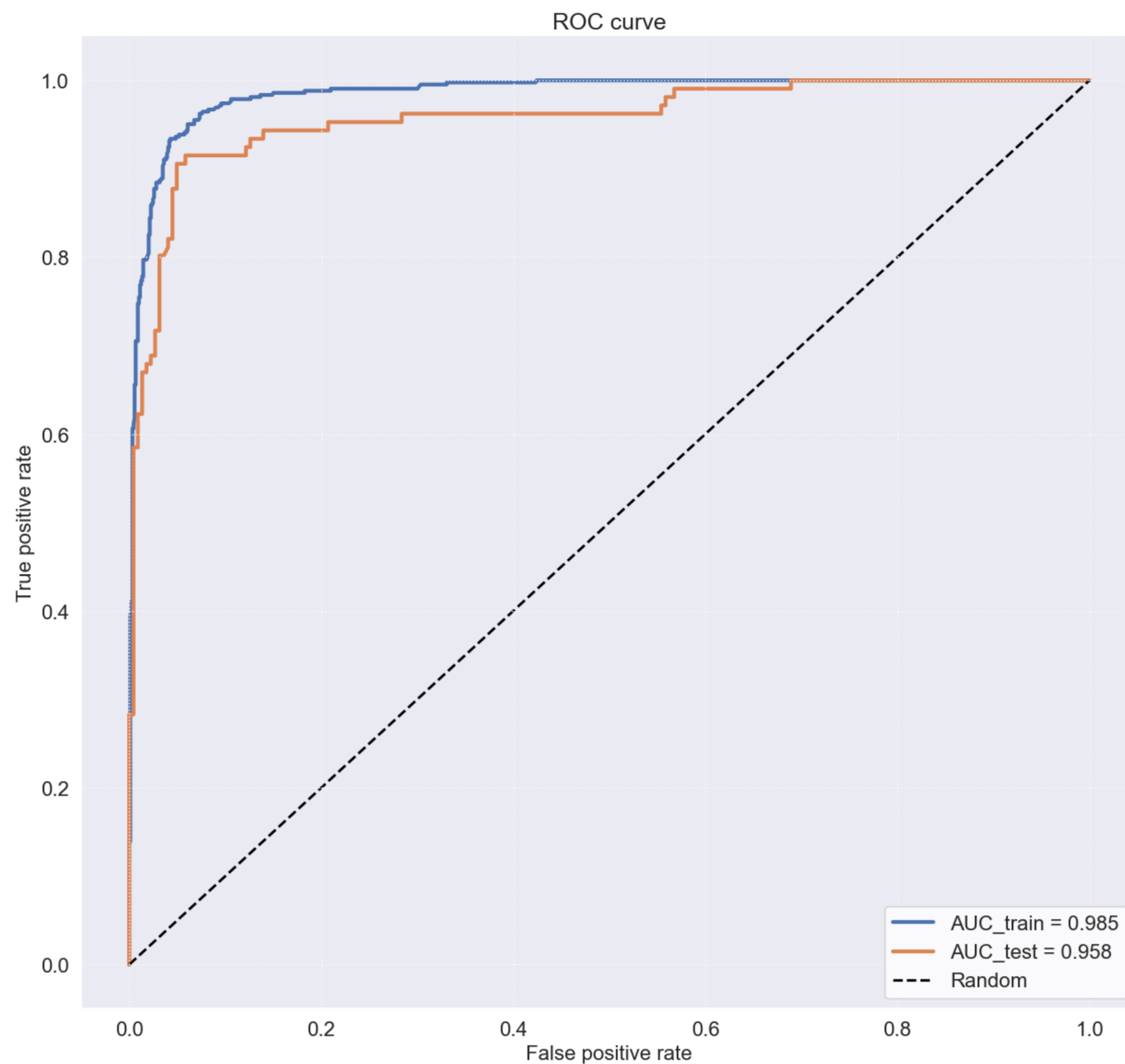
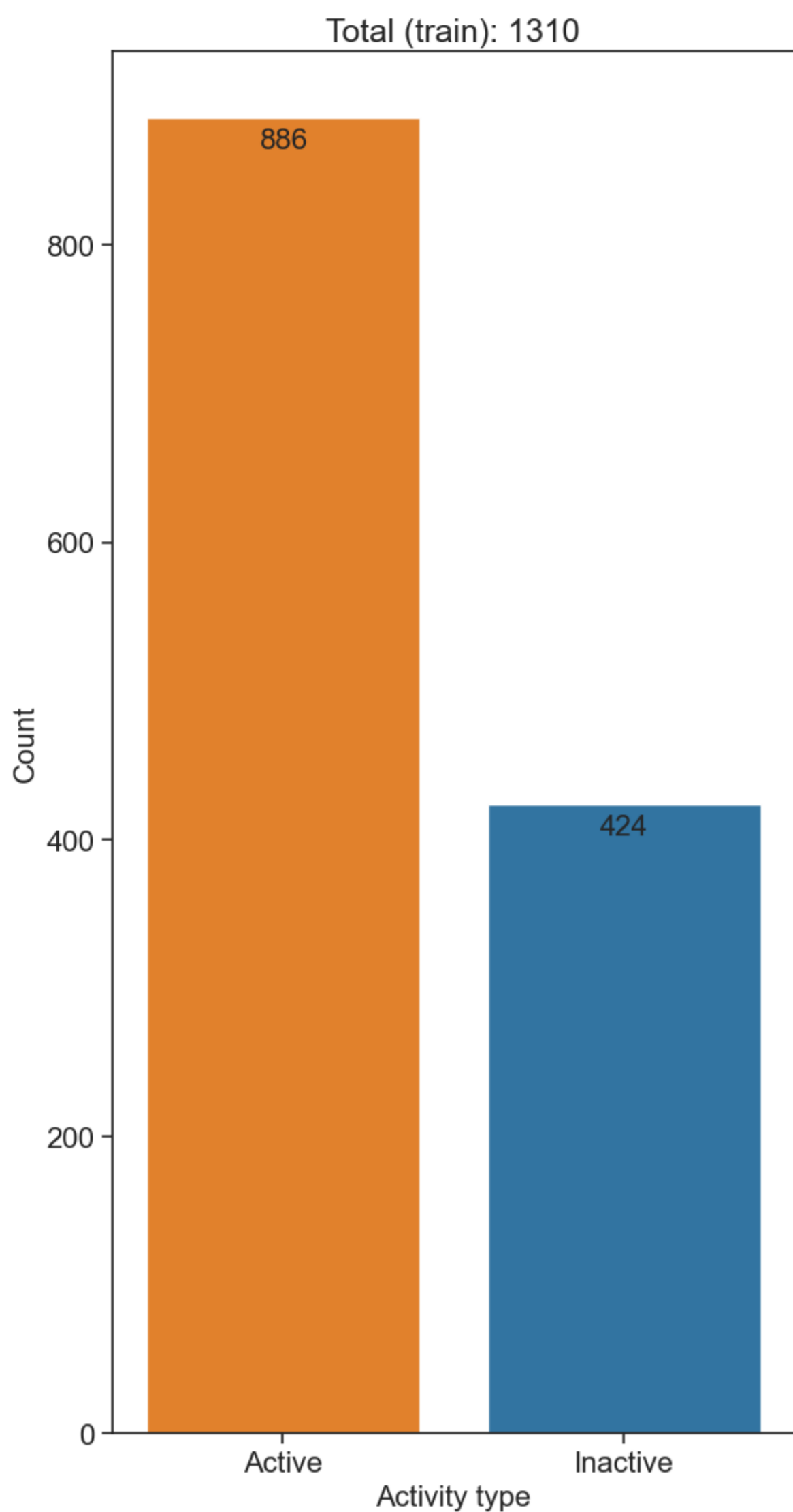


XGBoost Parameters	Value
alpha	3.3087
colsample_bytree	0.6138
gamma	0.1929
lambda	2.3324
learning_rate	0.0266
max_depth	4.0
min_child_weight	2.0
n_estimators	956.0
reg_alpha	0.7398
reg_lambda	0.939
scale_pos_weight	1.5073
subsample	0.5977

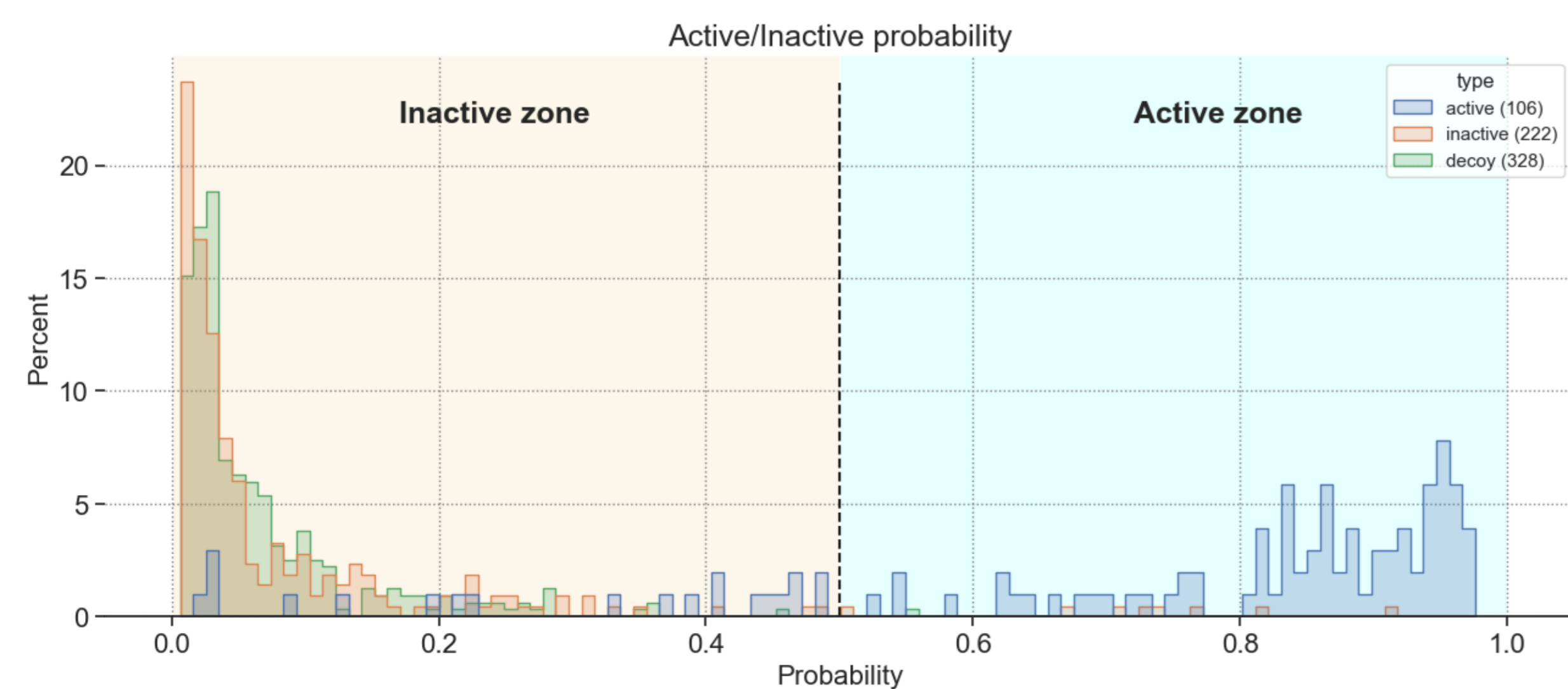
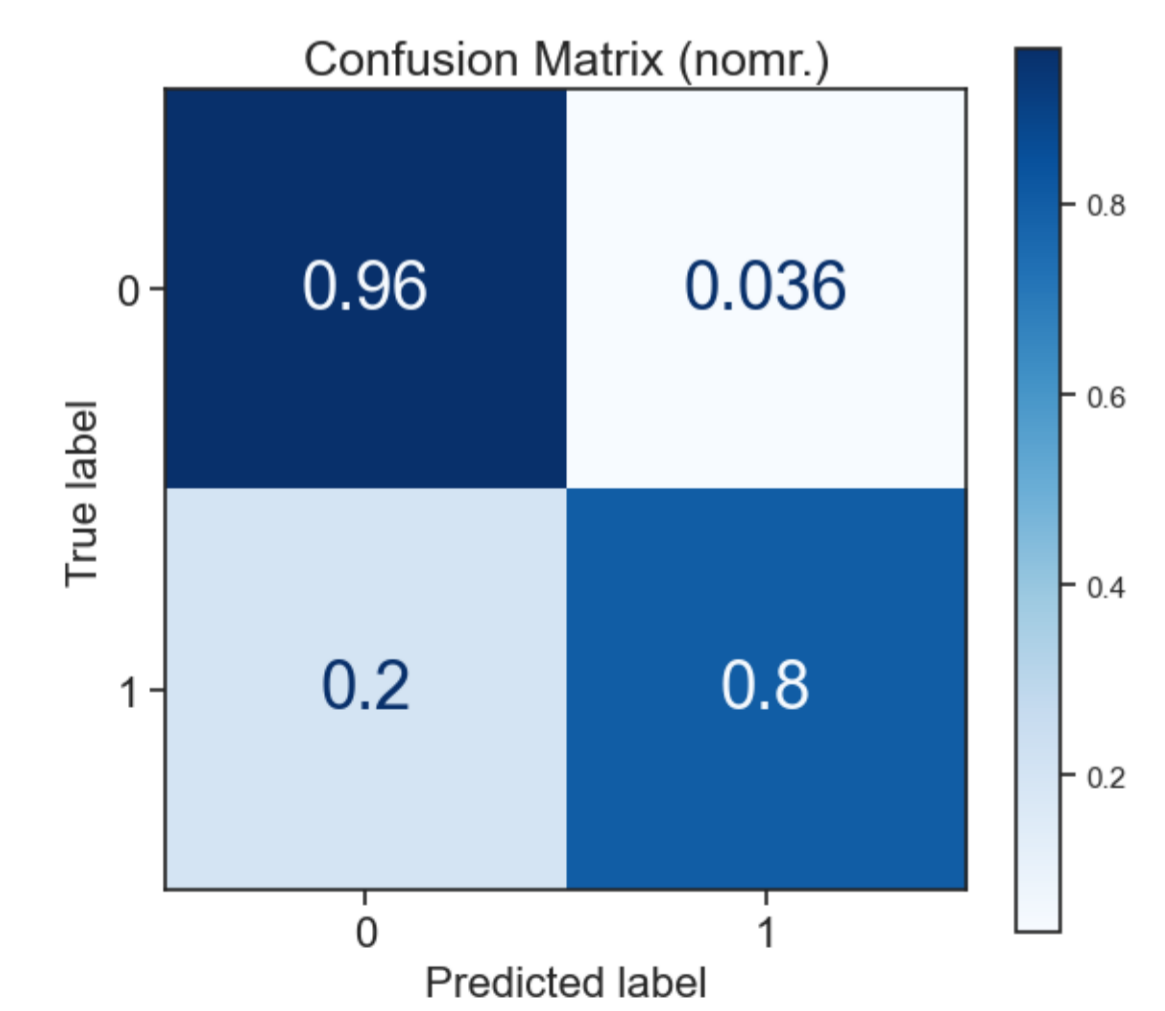
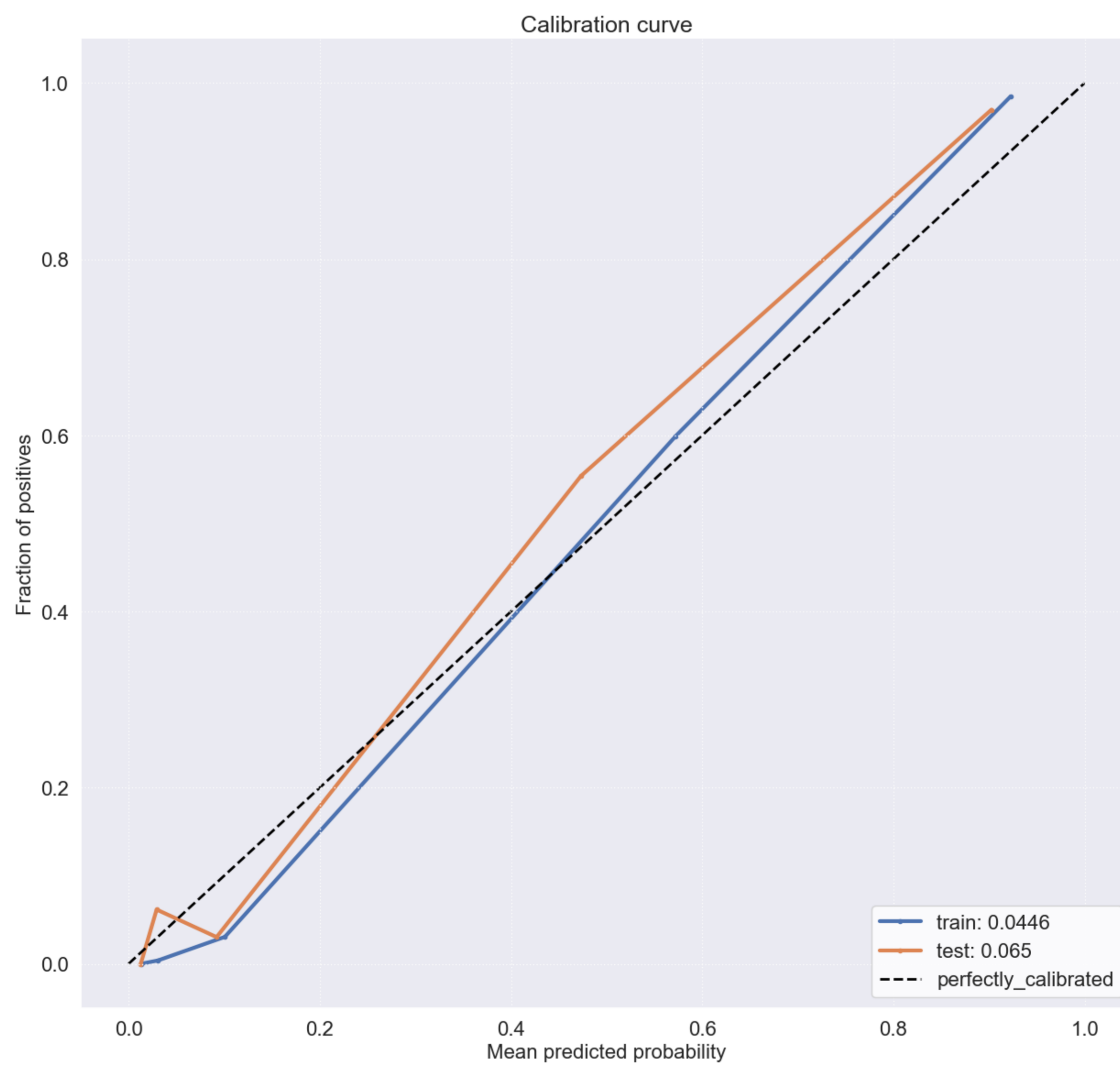
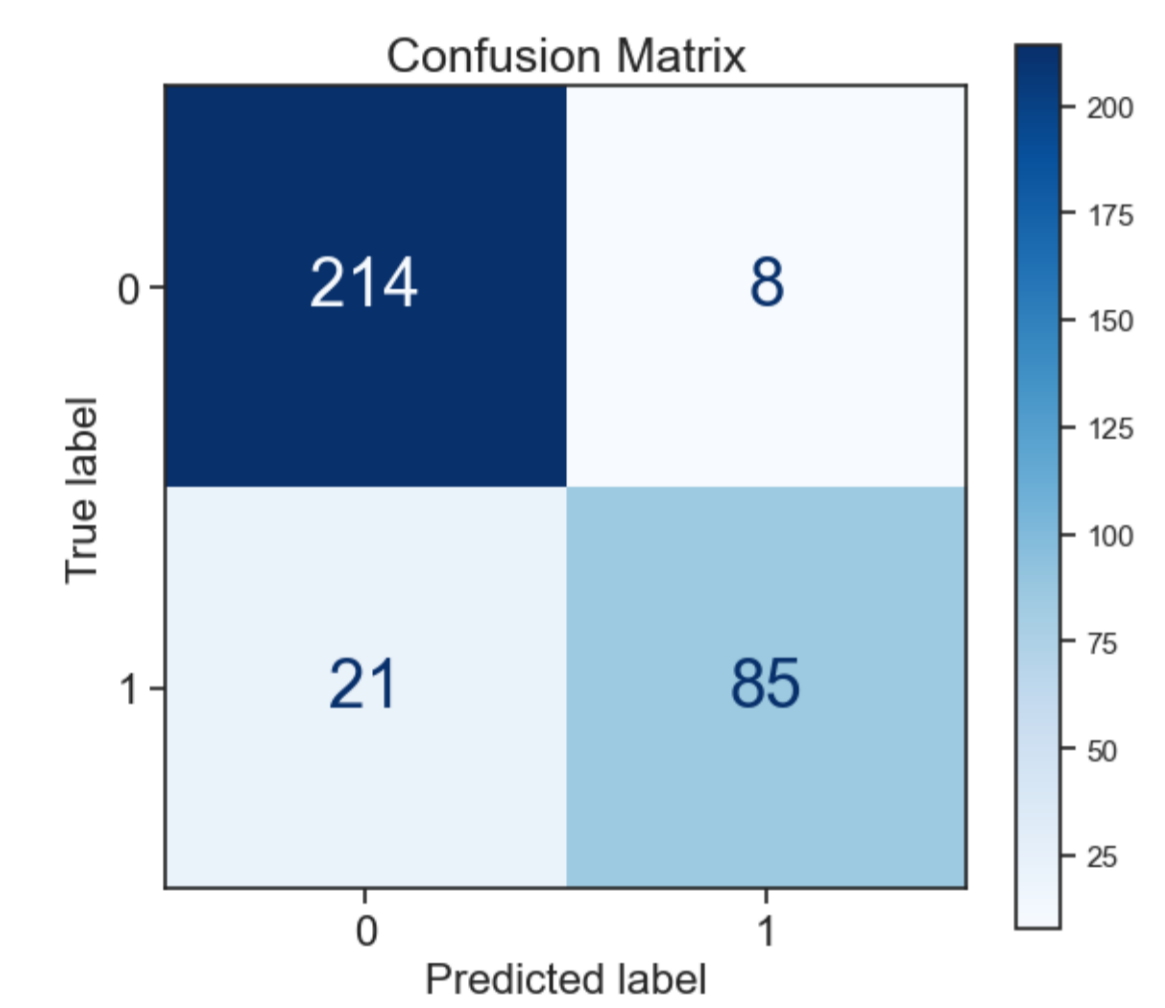


Metric	Train	Test
AUC	0.991	0.9662
accuracy	0.958	0.9329
balanced accuracy	0.9567	0.9233
recall_(sens)	0.9528	0.8962
specificity	0.9605	0.9505
precision	0.9203	0.8962
f1_score	0.9582	0.9329

Protein: Q96BI3 - metric: precision

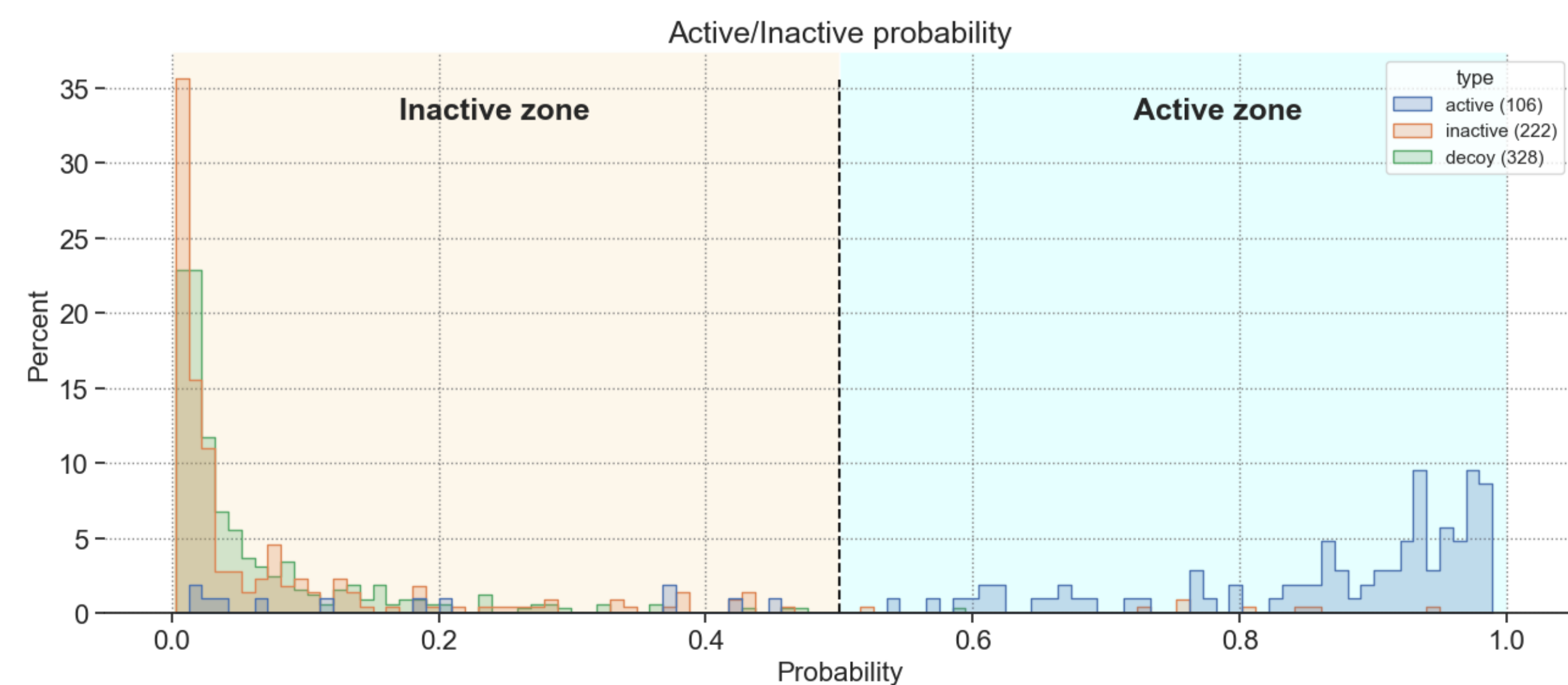
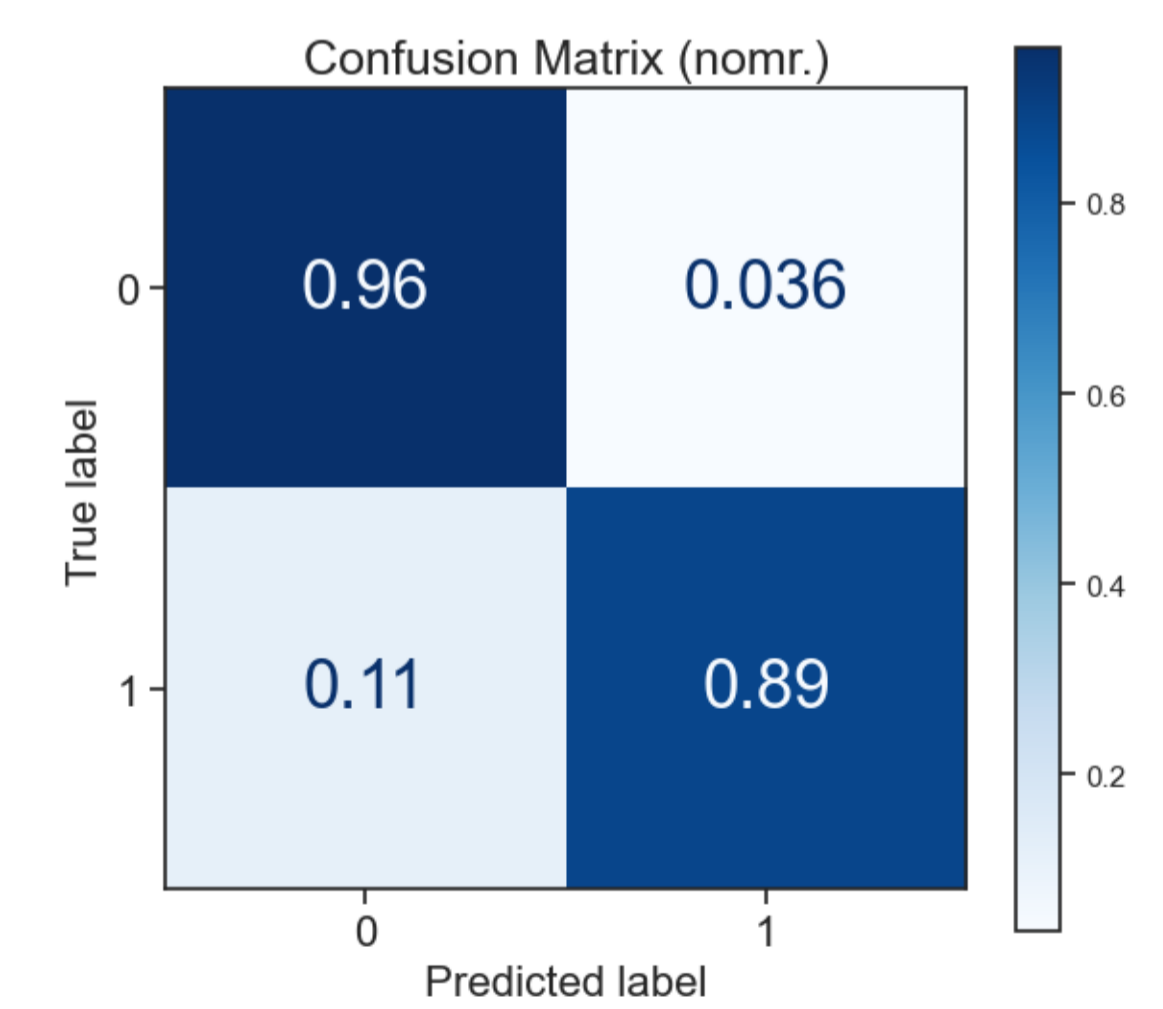
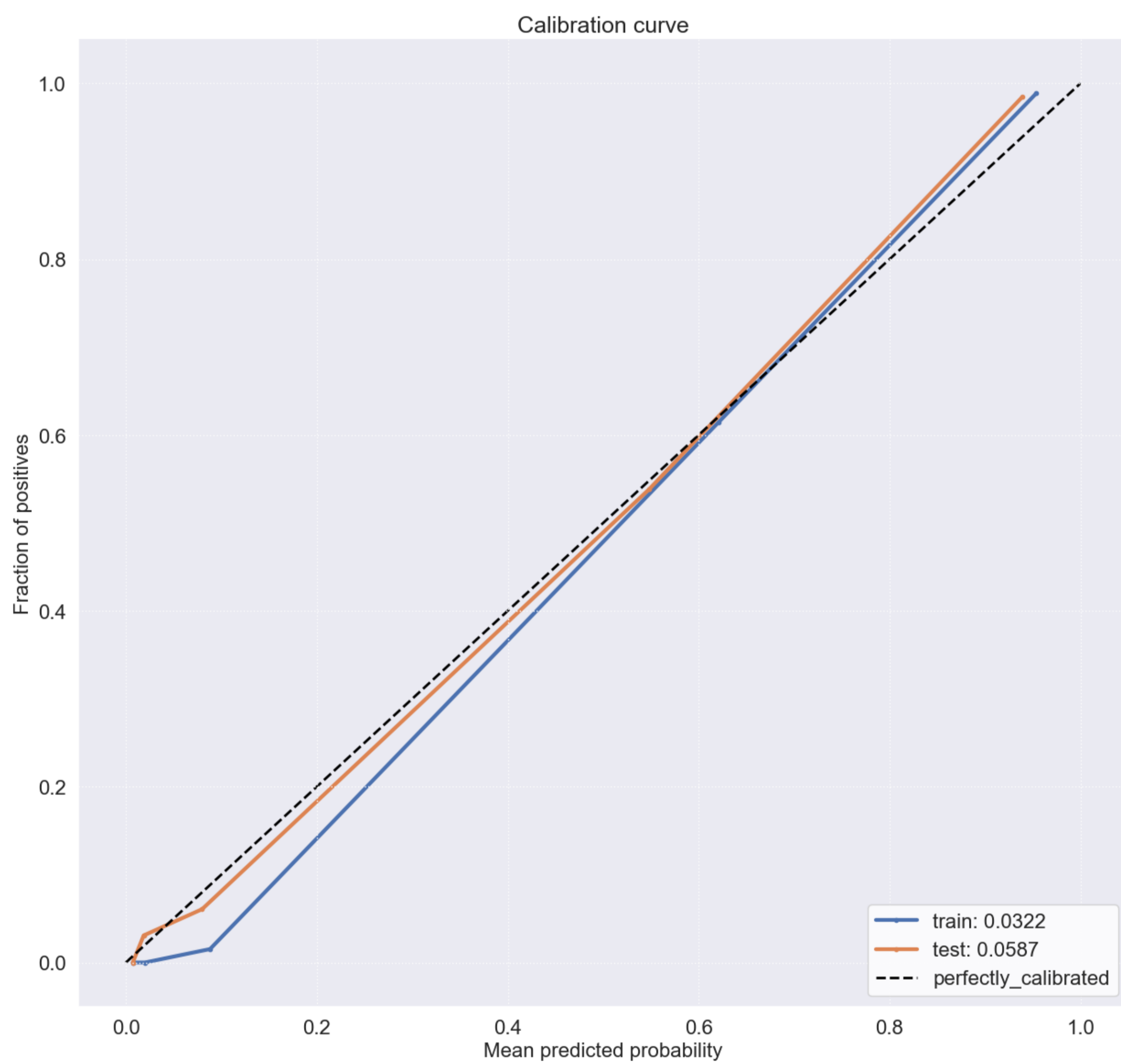
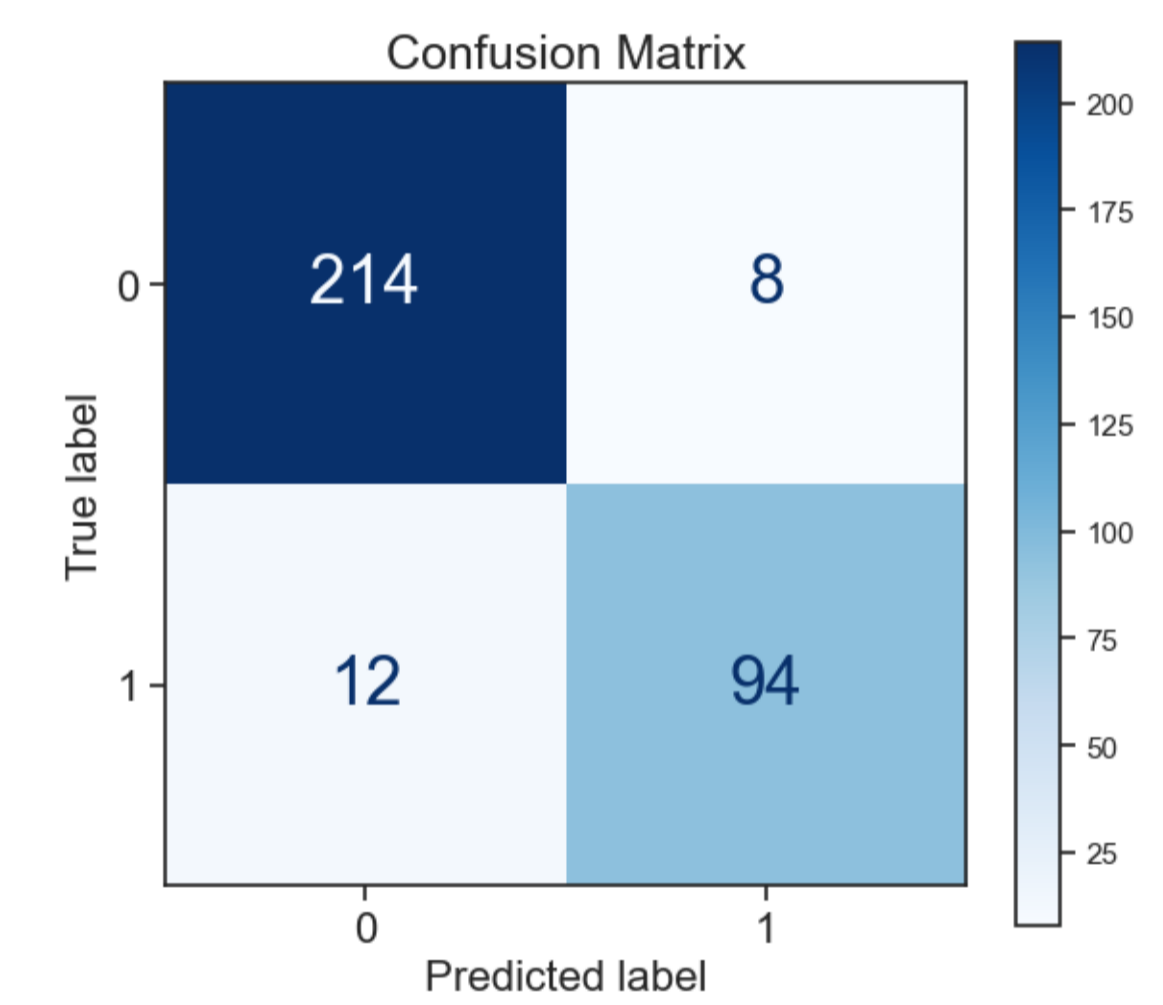
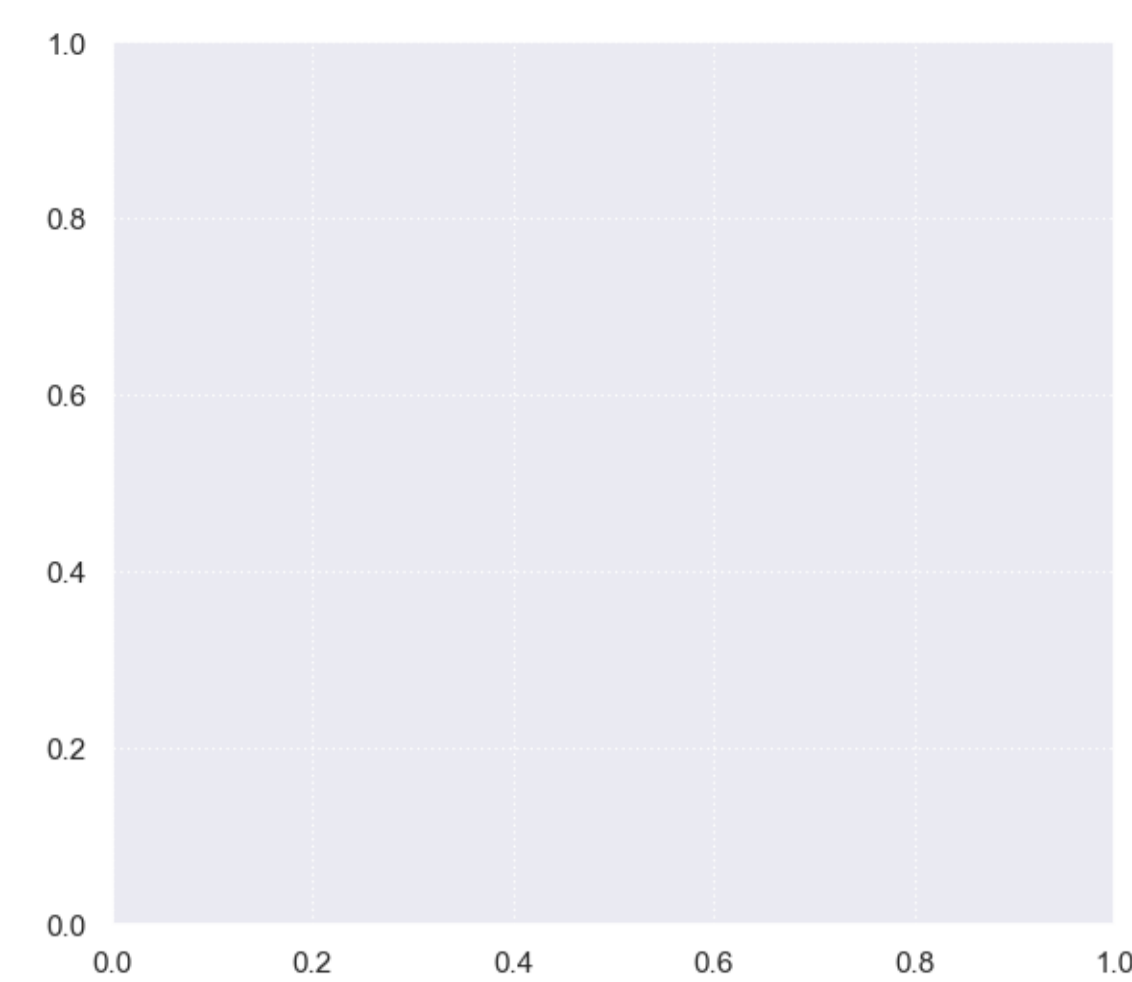
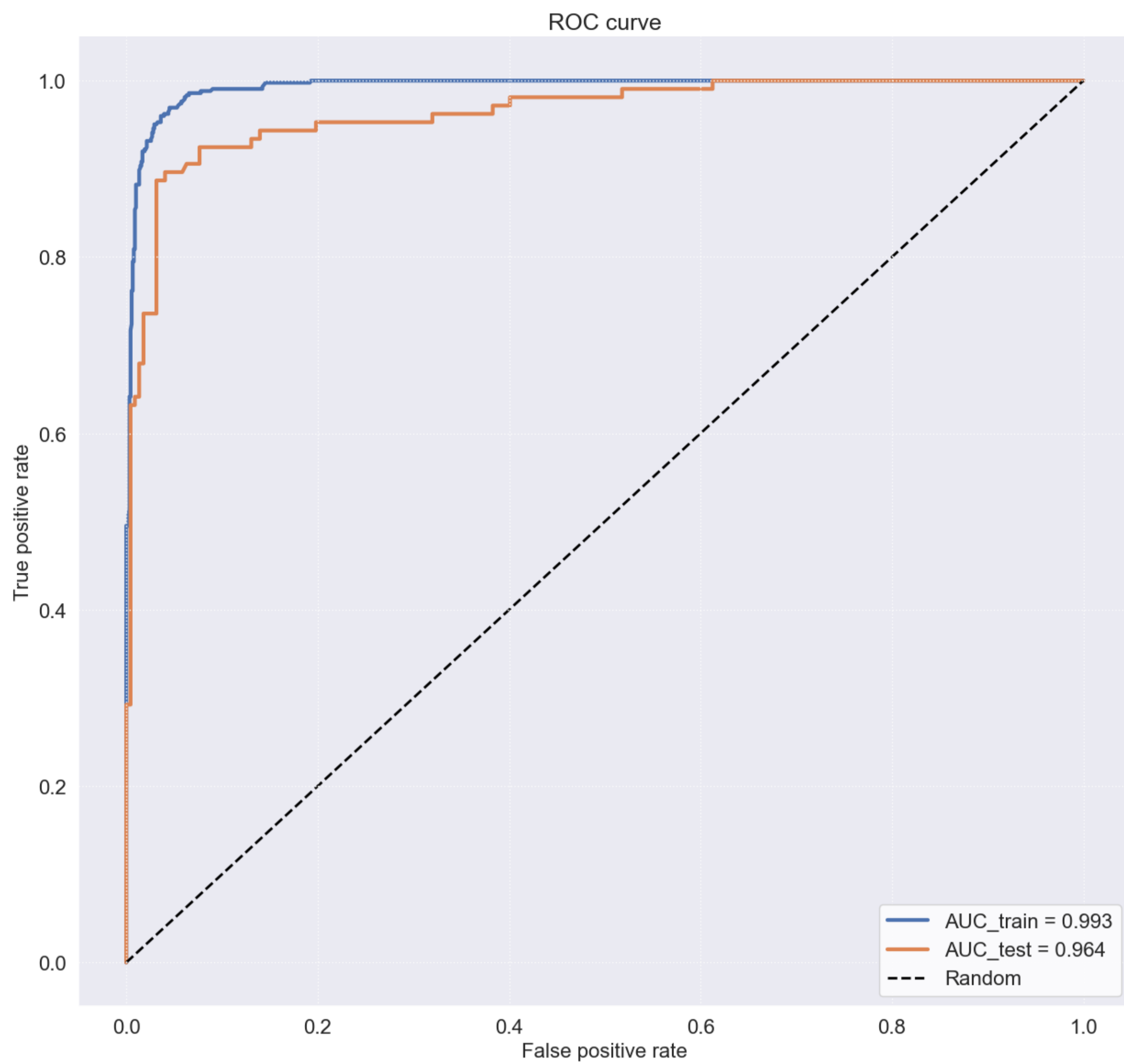
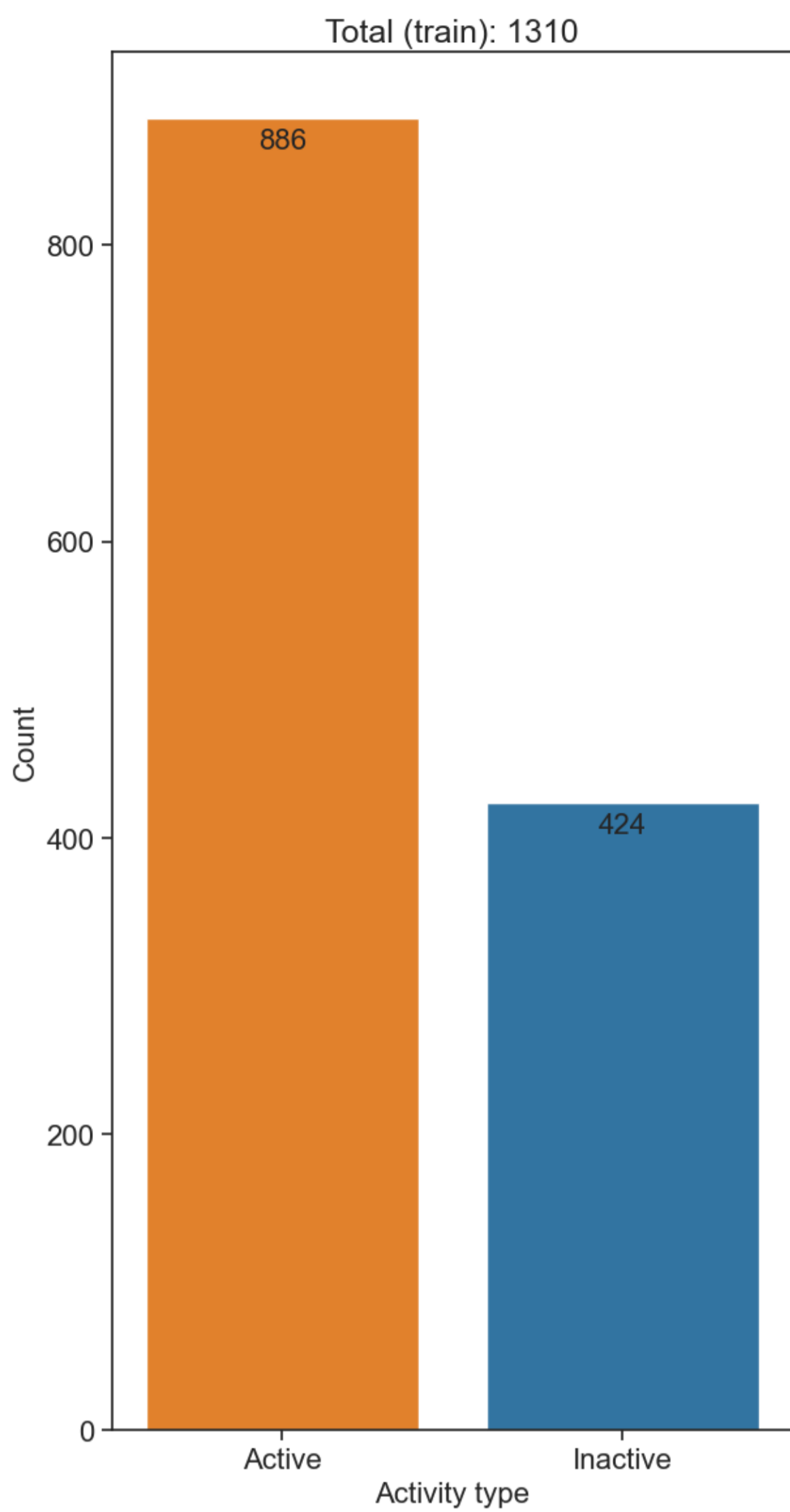


XGBoost Parameters	Value
alpha	3.7239
colsample_bytree	0.9359
gamma	0.6023
lambda	3.6493
learning_rate	0.0075
max_depth	9.0
min_child_weight	3.0
n_estimators	790.0
reg_alpha	0.418
reg_lambda	0.8922
scale_pos_weight	1.1008
subsample	0.6974



Metric	Train	Test
AUC	0.9852	0.958
accuracy	0.9473	0.9116
balanced accuracy	0.9408	0.8829
recall_(sens)	0.9222	0.8019
specificity	0.9594	0.964
precision	0.9157	0.914
f1_score	0.9474	0.91

Protein: Q96BI3 - metric: SoftVotingXGBoostEnsemble



Metric	Train	Test
AUC	0.993	0.9642
accuracy	0.9603	0.939
balanced accuracy	0.9584	0.9254
recall_(sens)	0.9528	0.8868
specificity	0.9639	0.964
precision	0.9266	0.9216
f1_score	0.9604	0.9387