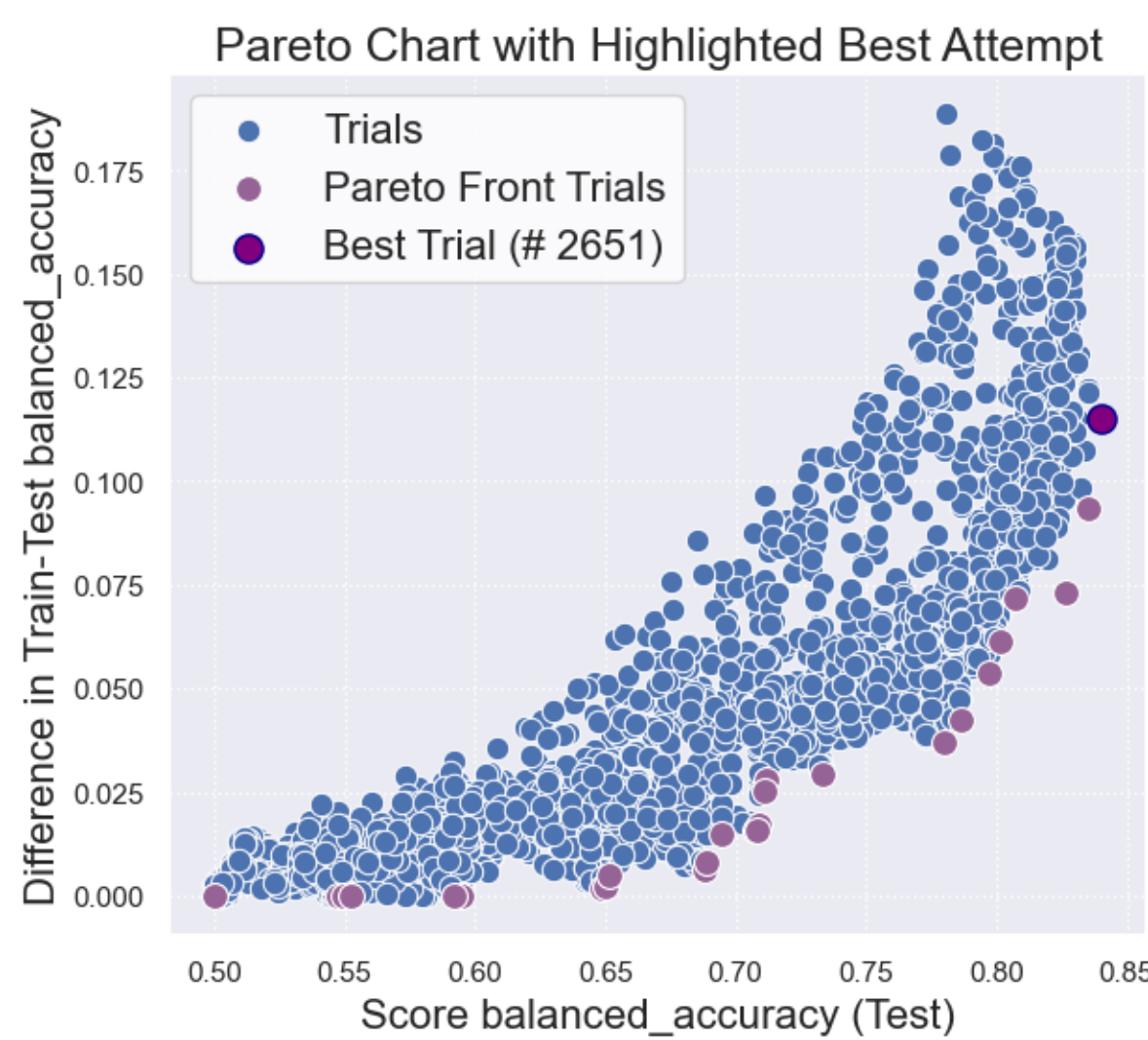
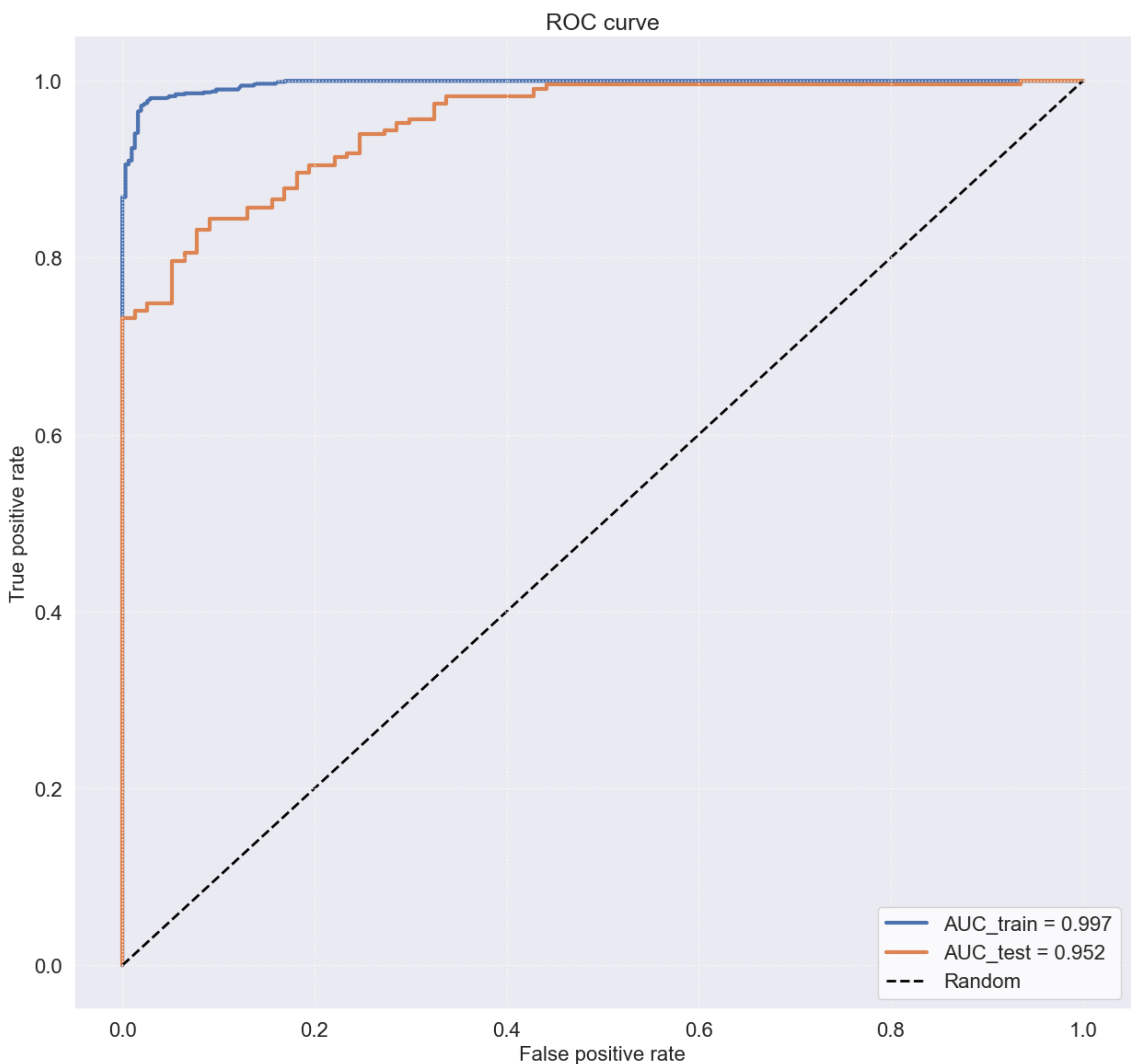
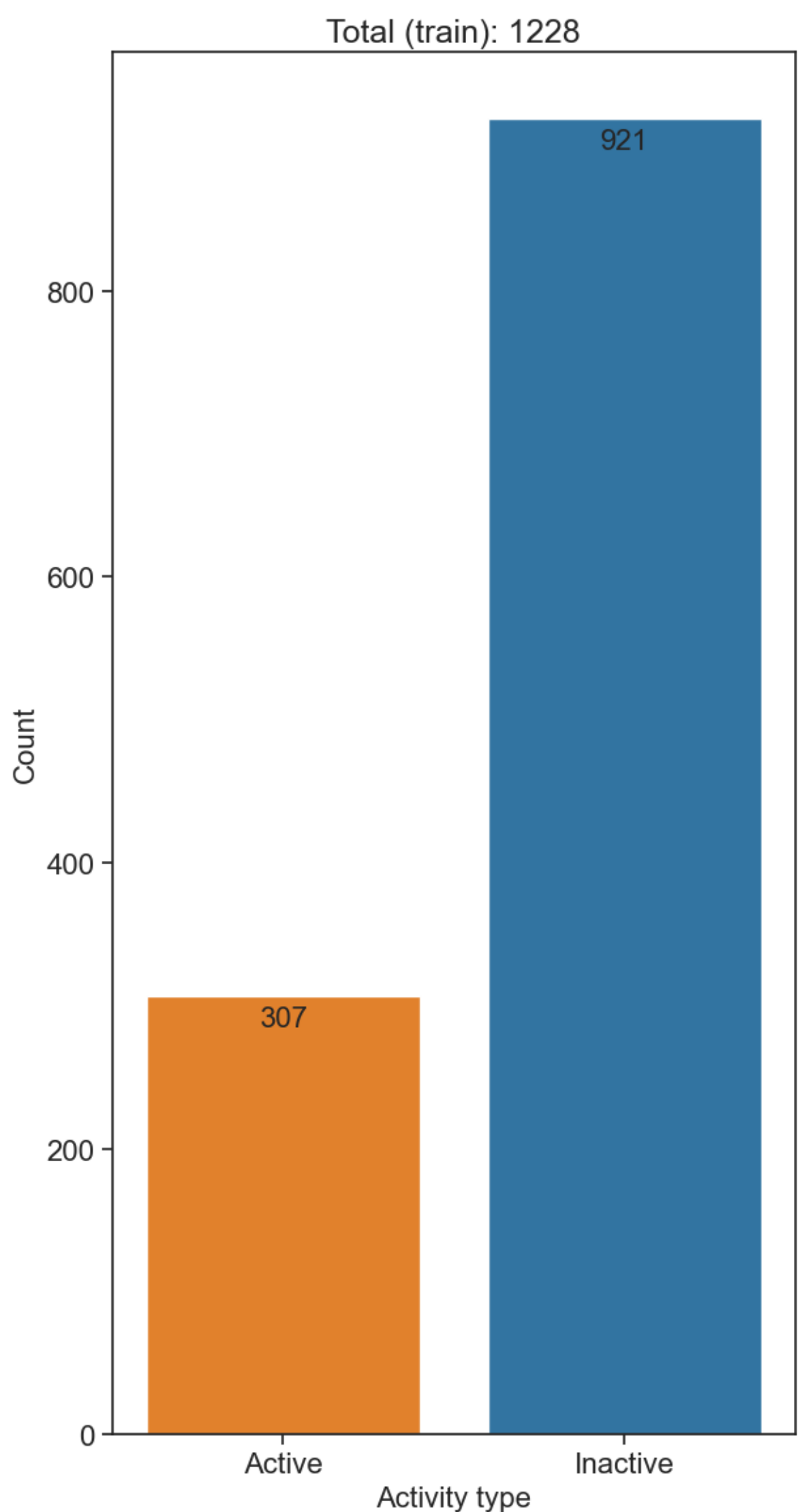
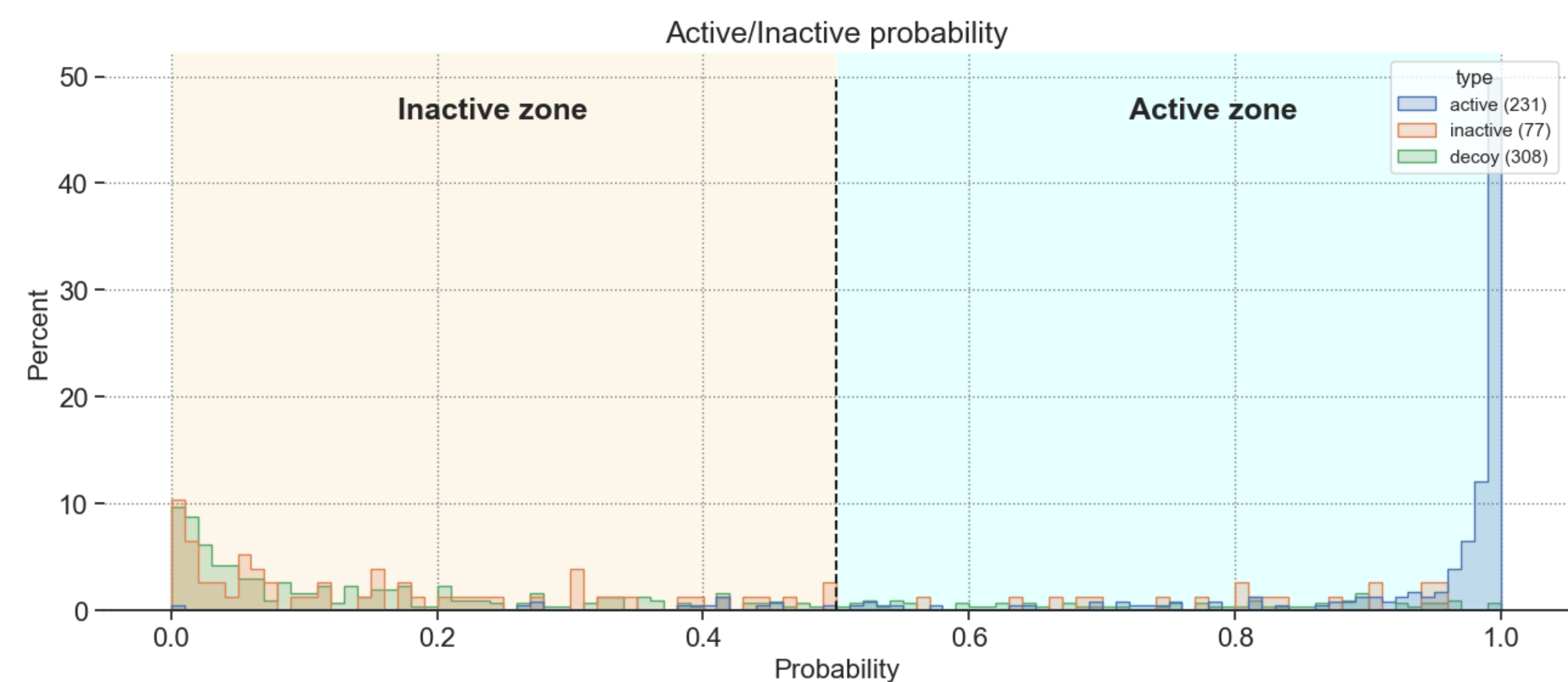
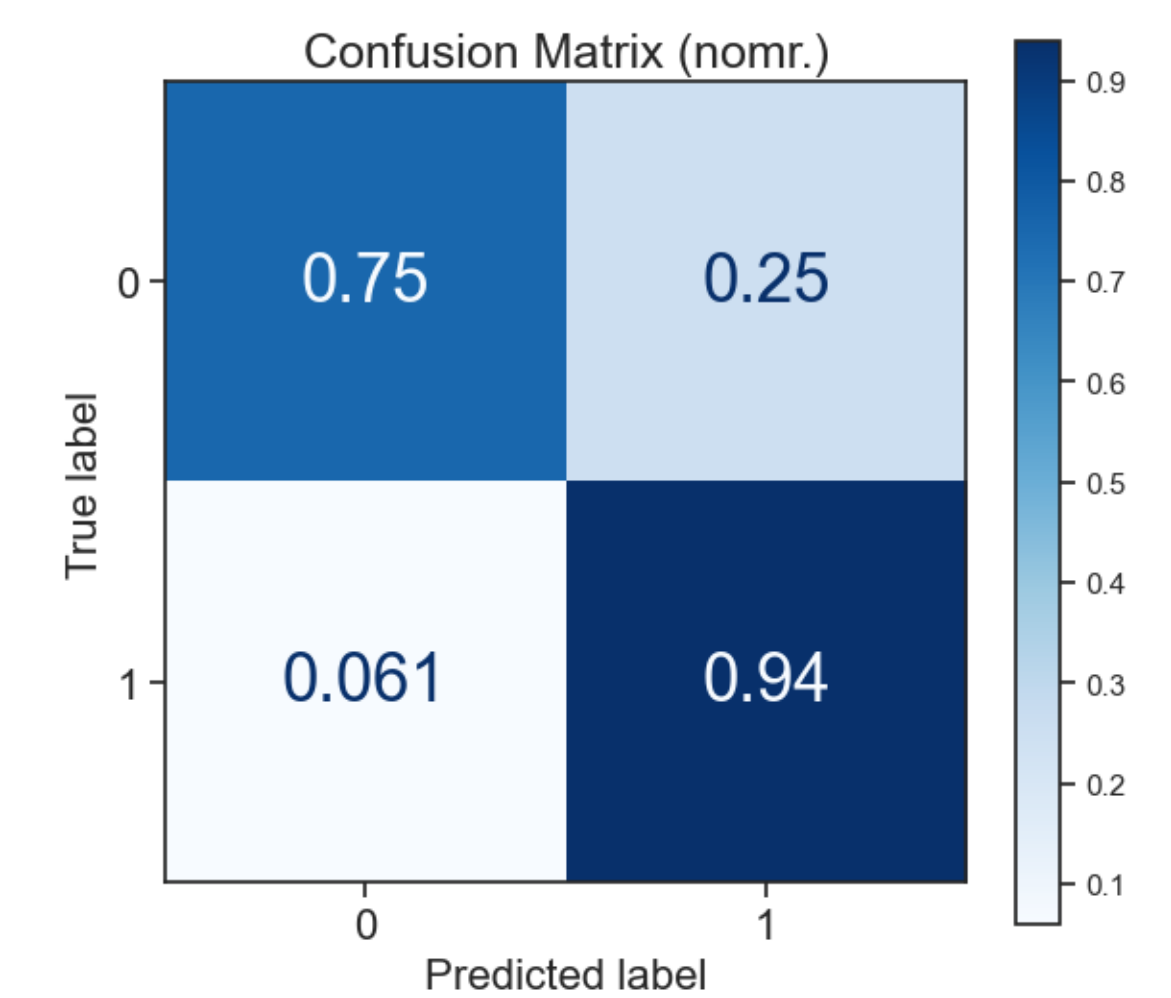
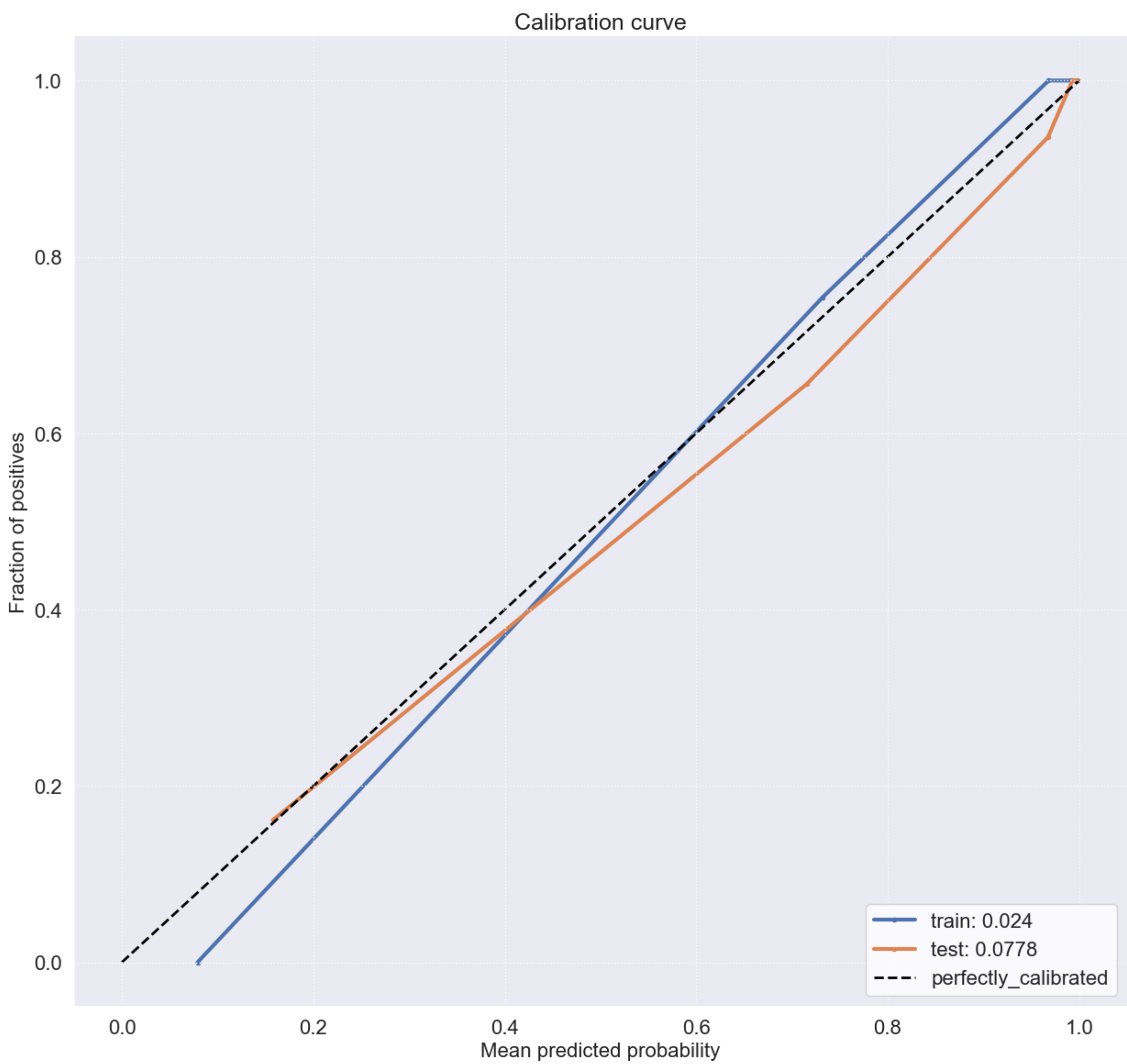
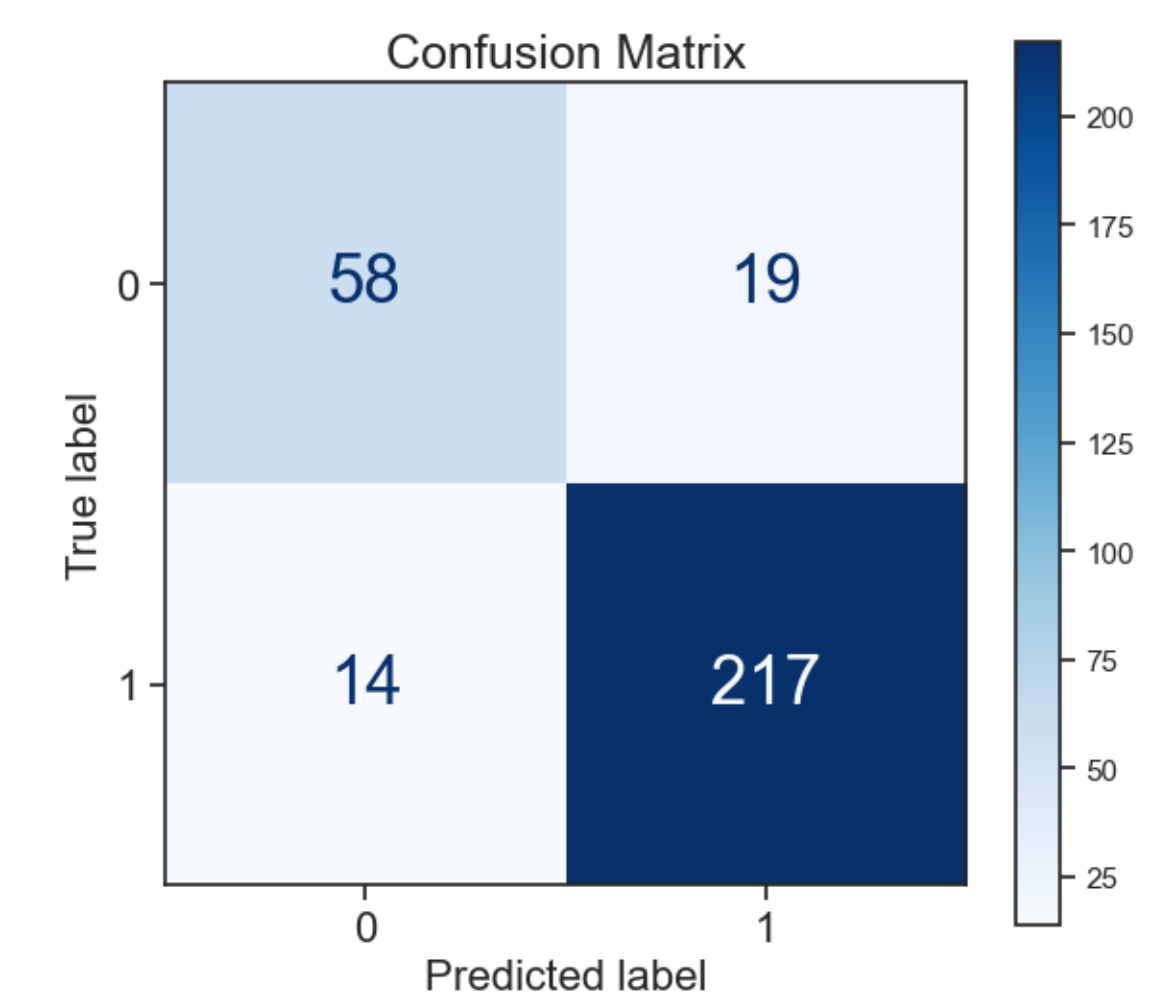


Protein: P49768 - metric: balanced_accuracy

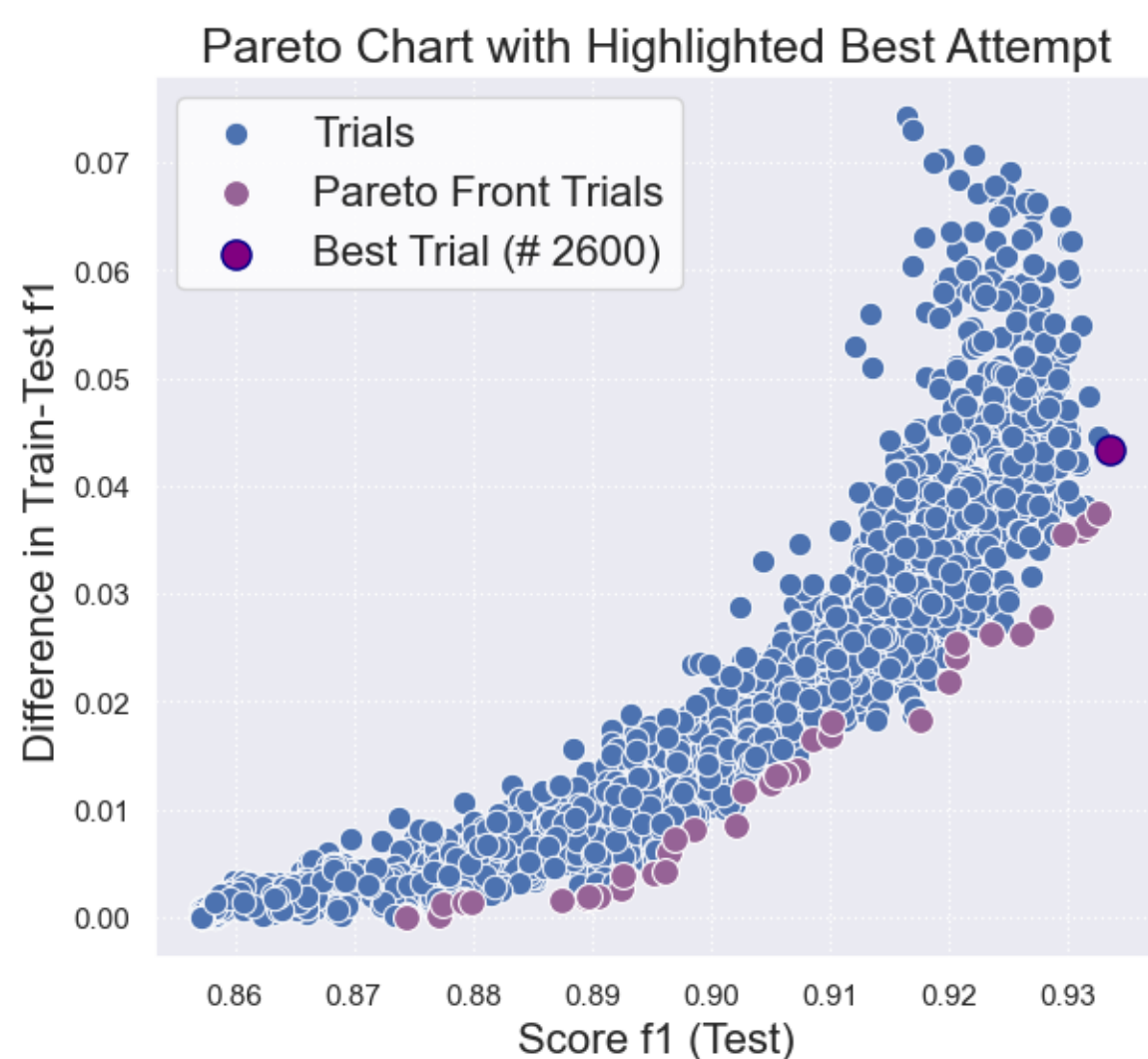
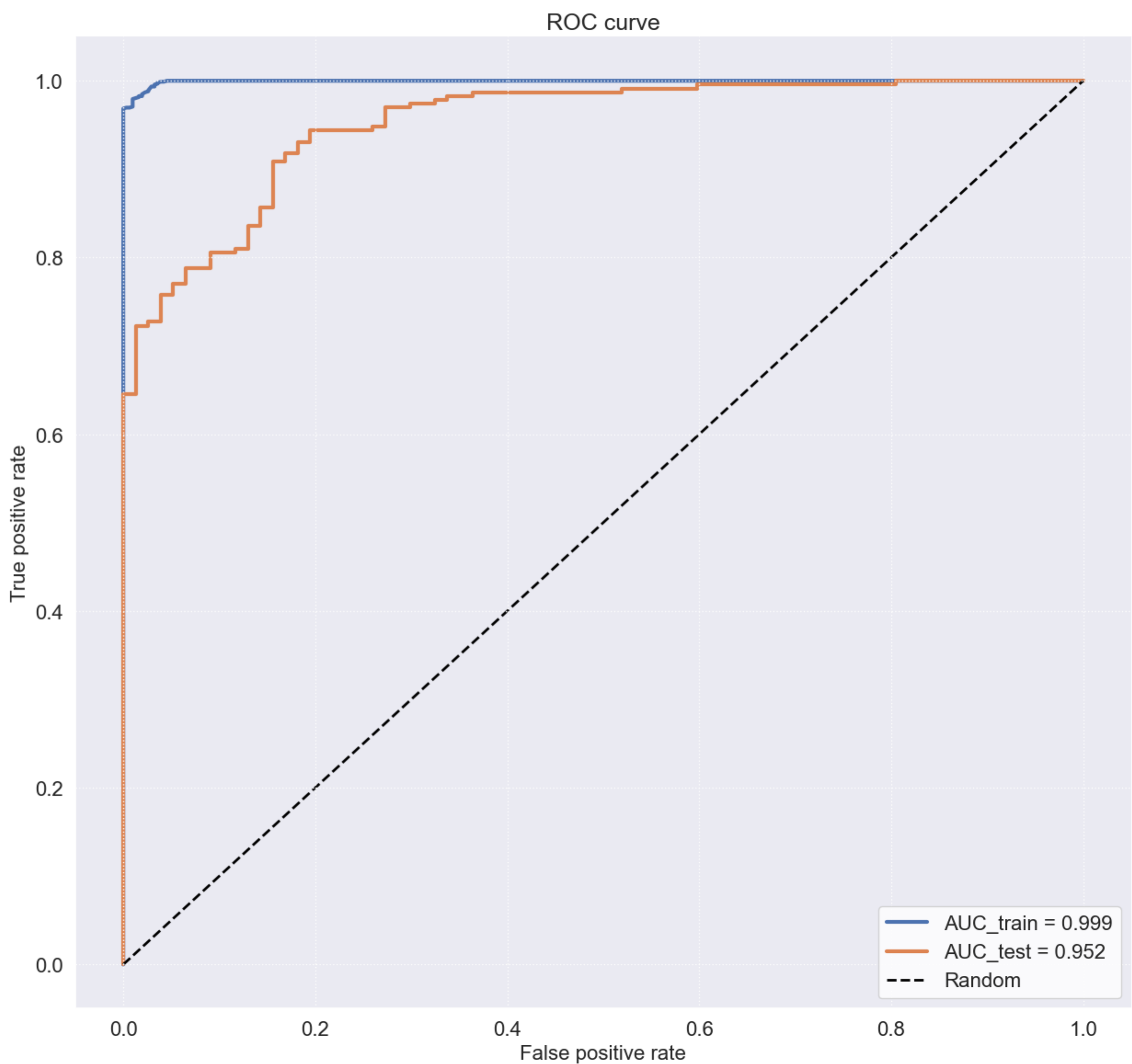
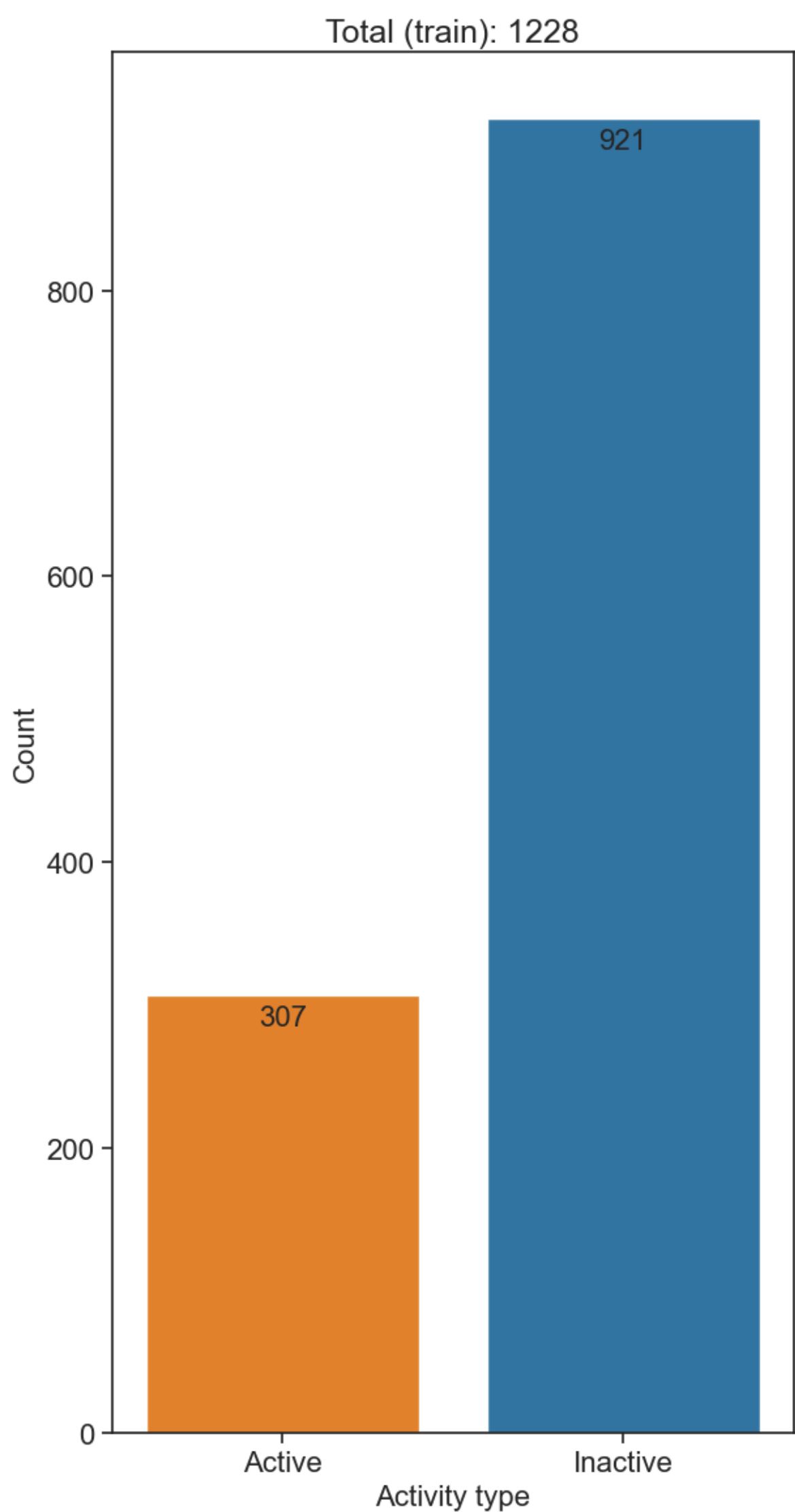


XGBoost Parameters	Value
alpha	2.1688
colsample_bytree	0.9973
gamma	0.6146
lambda	2.7472
learning_rate	0.145
max_depth	3.0
min_child_weight	3.0
n_estimators	997.0
reg_alpha	0.1424
reg_lambda	0.0299
scale_pos_weight	1.0789
subsample	0.9224

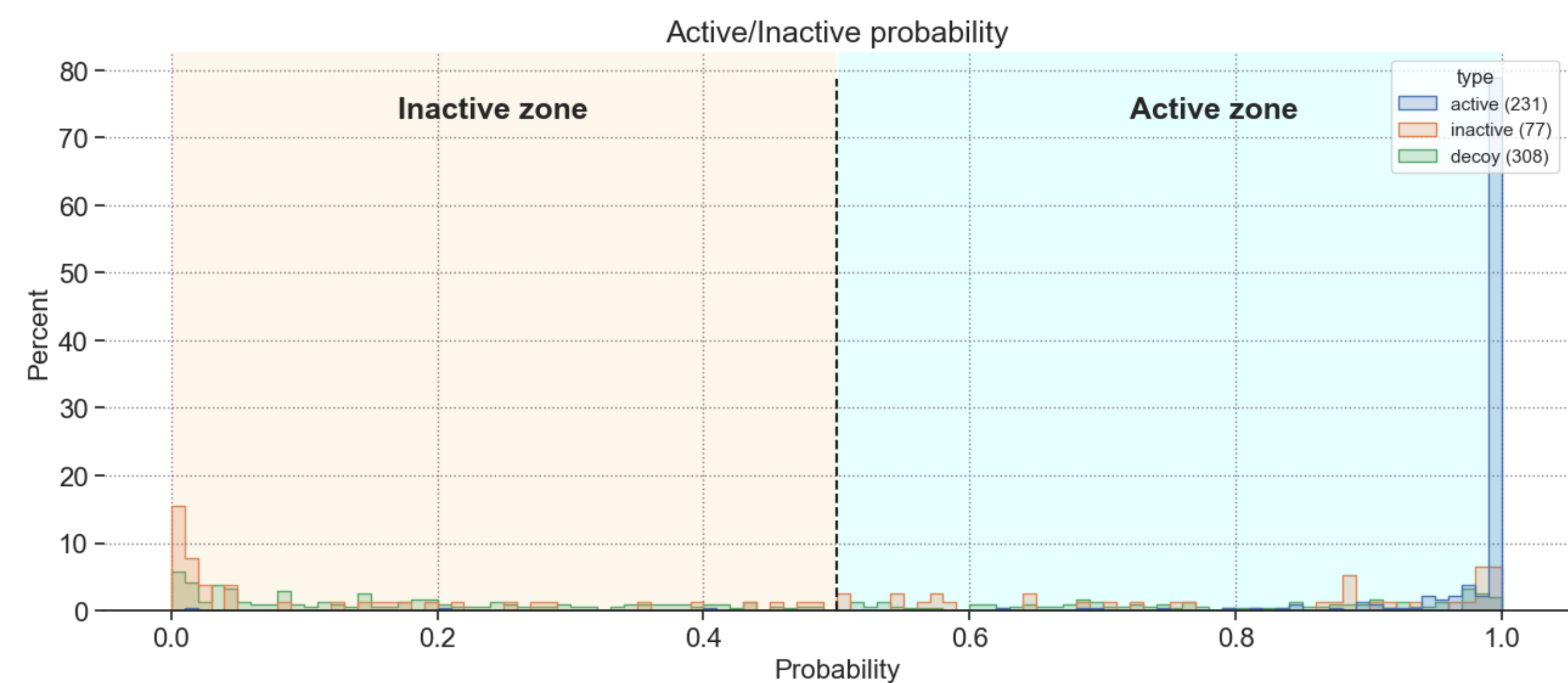
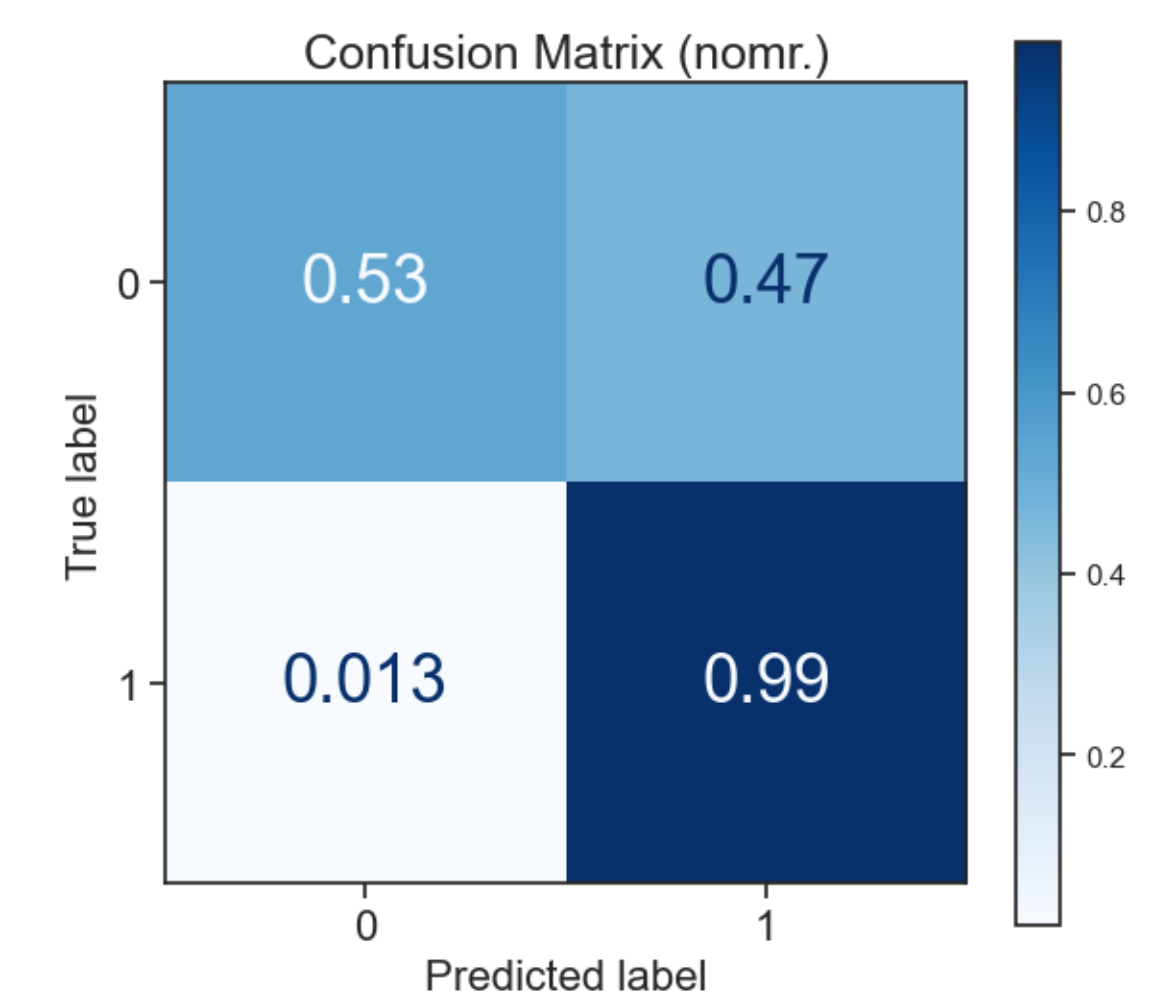
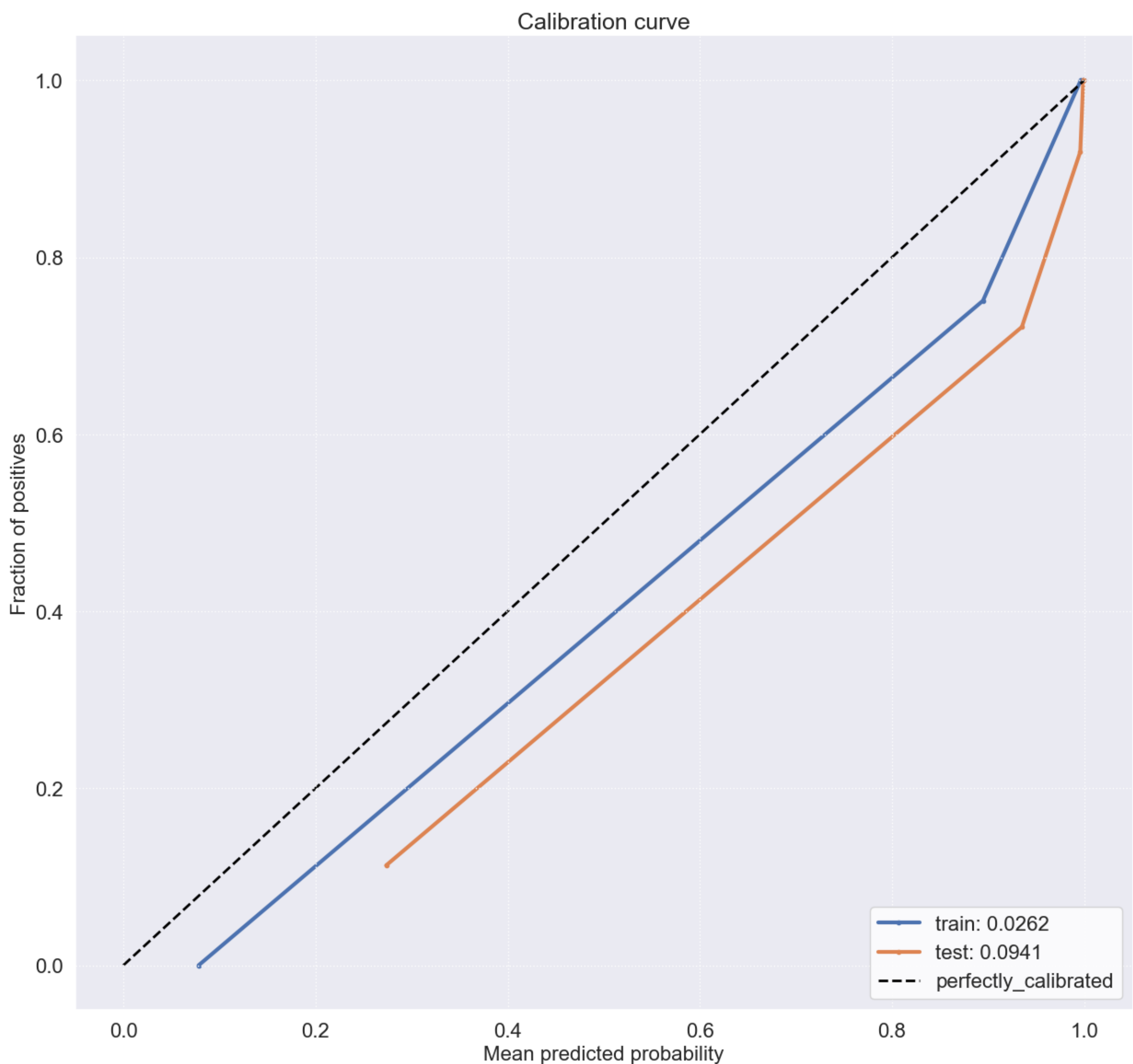
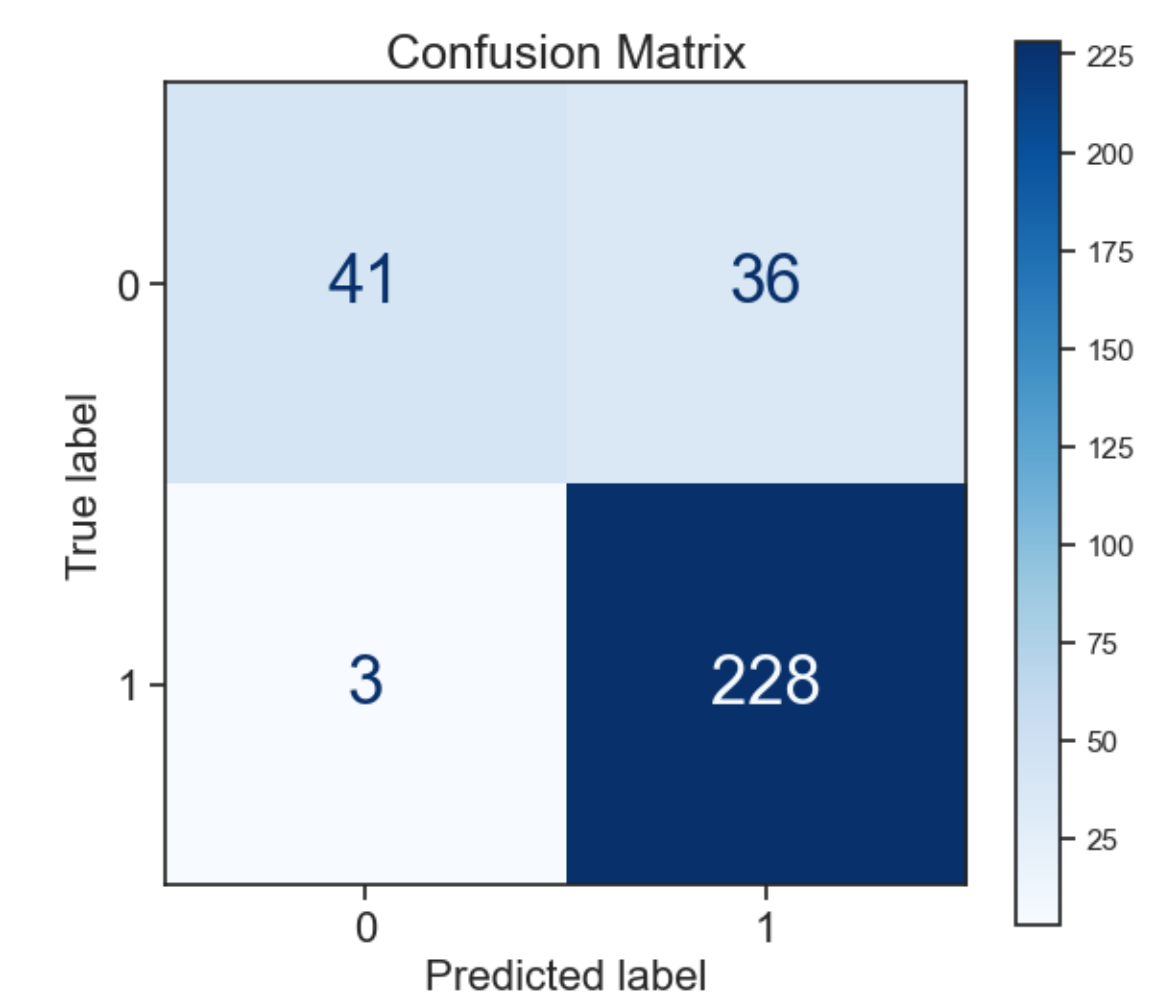


Metric	Train	Test
AUC	0.9967	0.9519
accuracy	0.9707	0.8929
balanced accuracy	0.9555	0.8463
recall_(sens)	0.9859	0.9394
specificity	0.9251	0.7532
precision	0.9753	0.9195
f1_score	0.9705	0.8916

Protein: P49768 - metric: f1

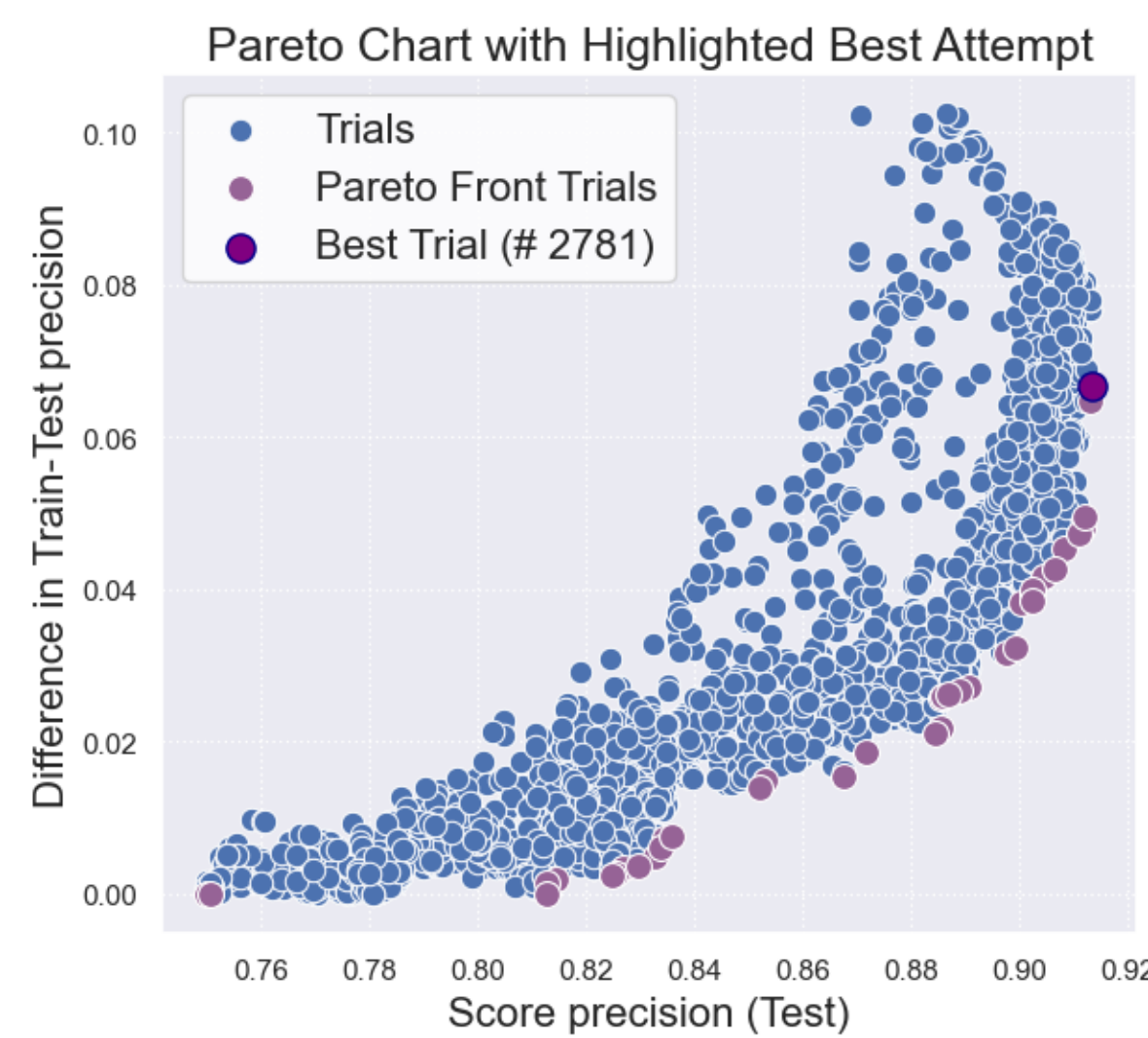
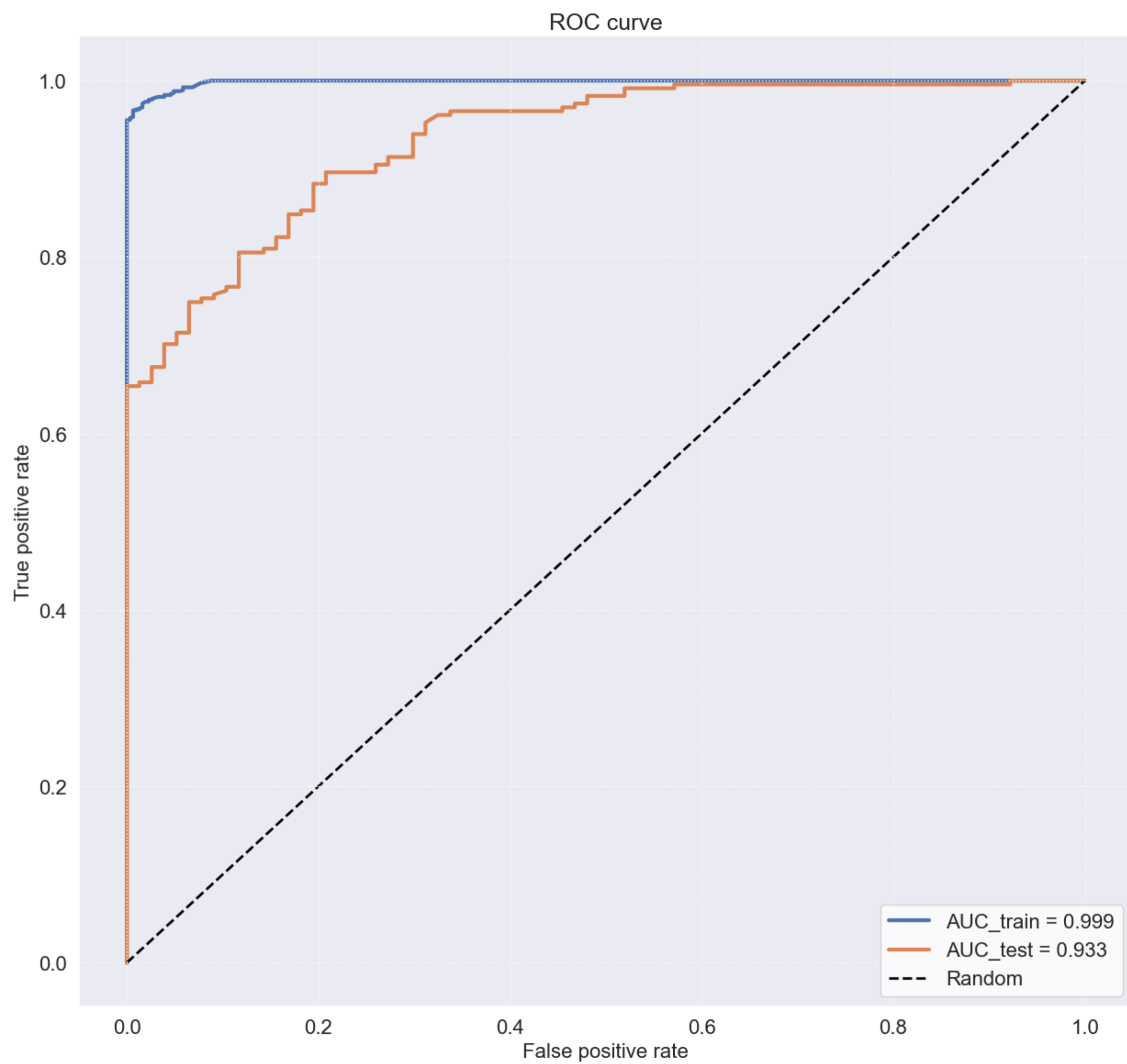
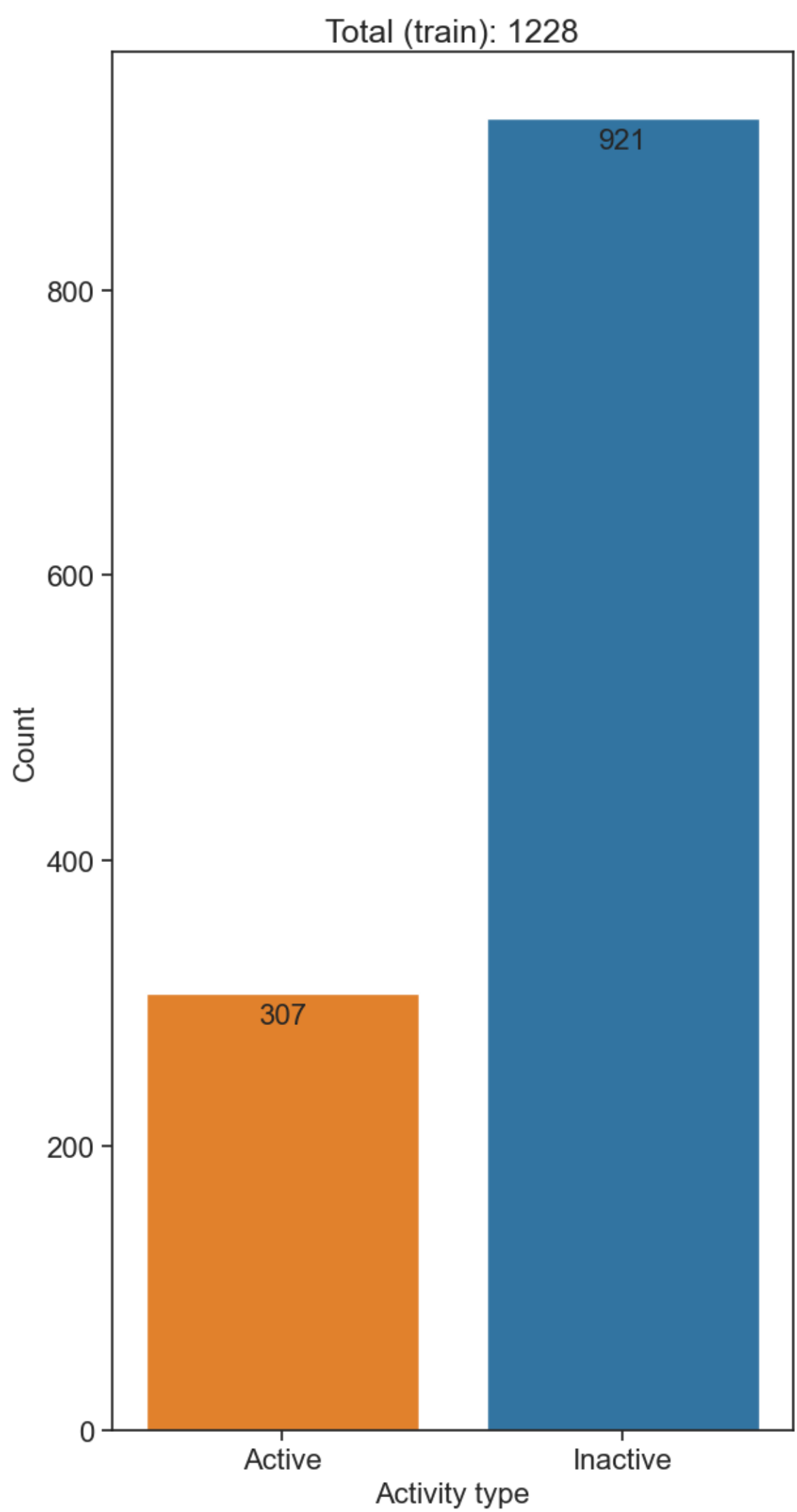


XGBoost Parameters	Value
alpha	2.1987
colsample_bytree	0.5691
gamma	0.6675
lambda	4.2892
learning_rate	0.0901
max_depth	7.0
min_child_weight	2.0
n_estimators	753.0
reg_alpha	0.3291
reg_lambda	0.631
scale_pos_weight	10.4314
subsample	0.8796

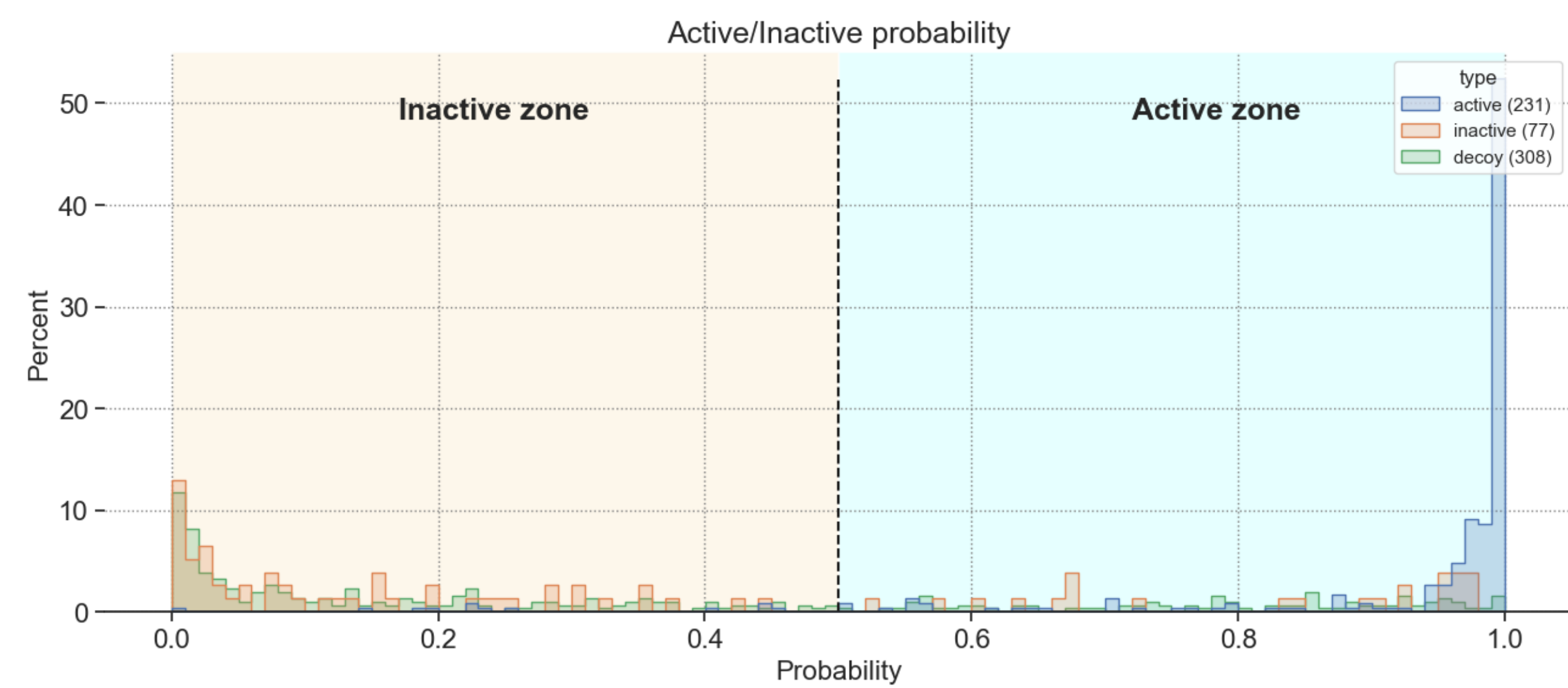
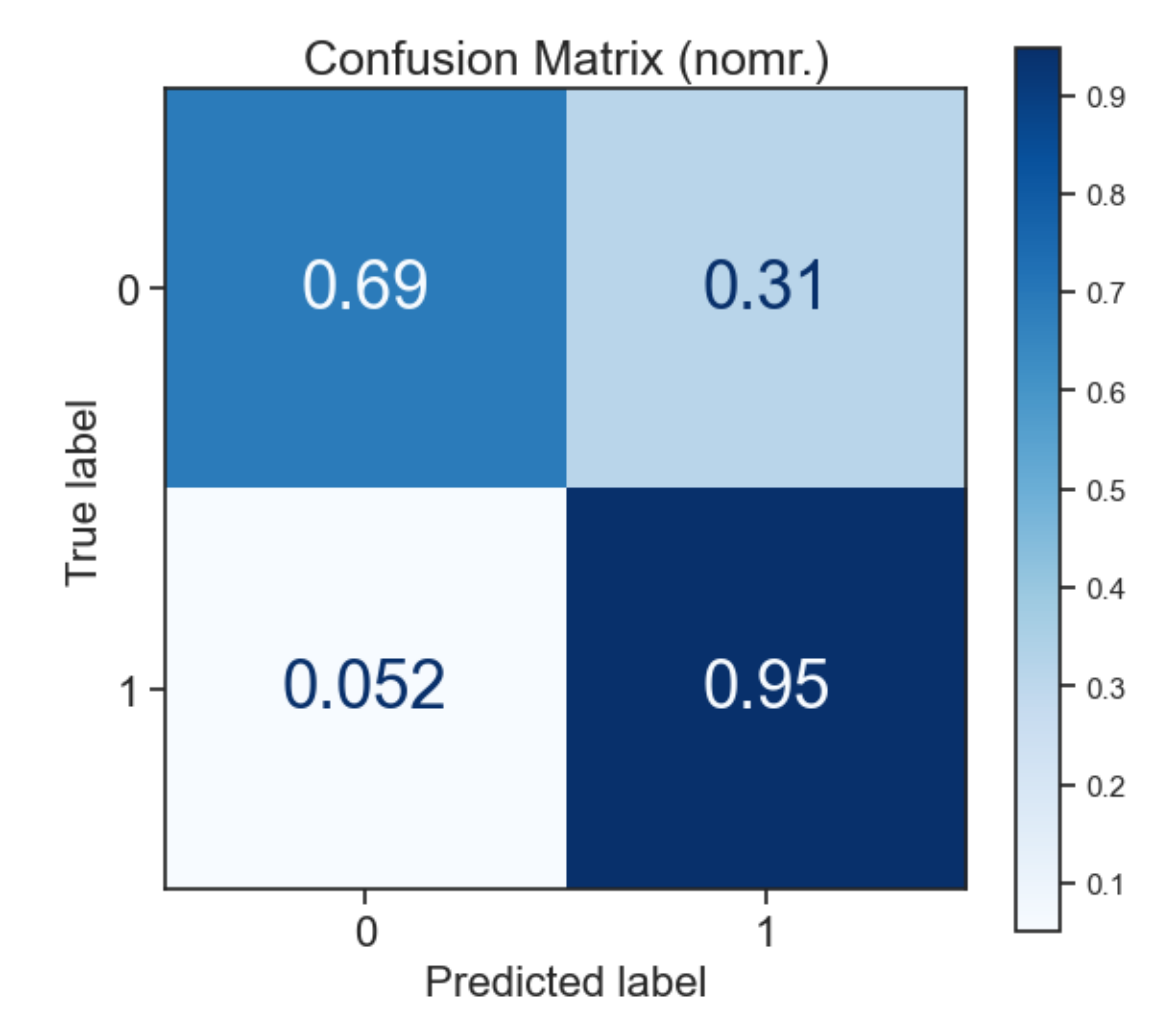
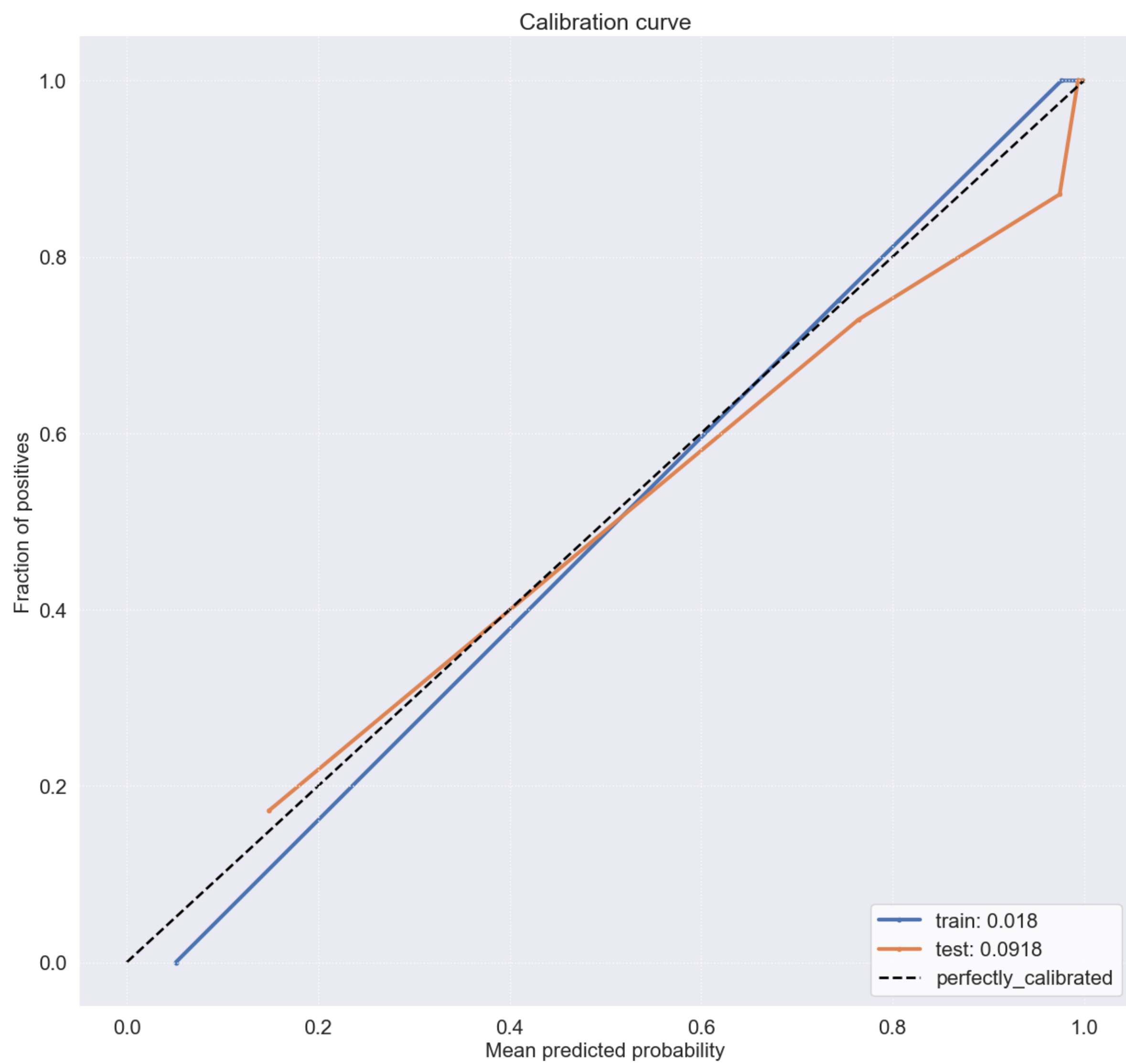
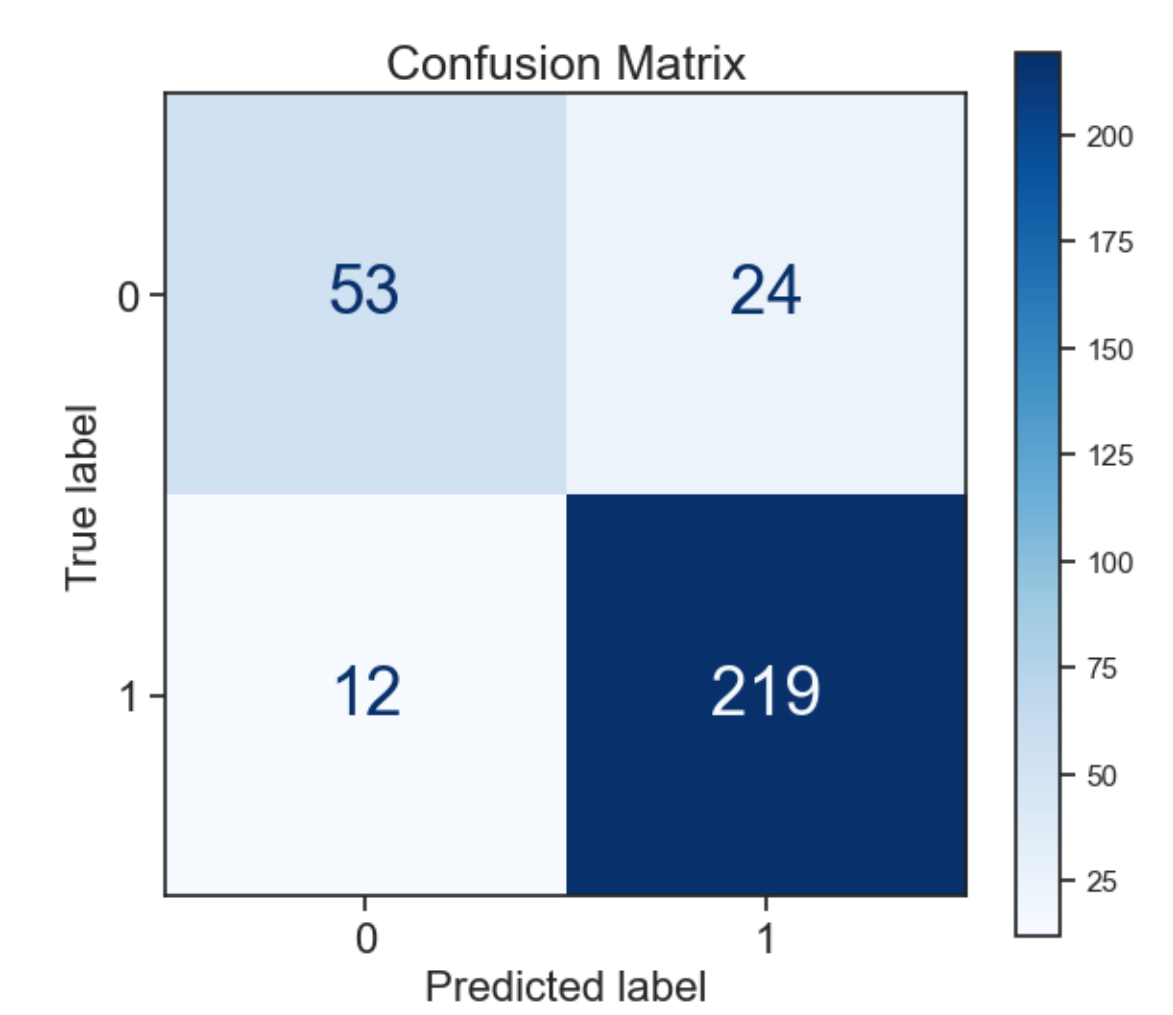


Metric	Train	Test
AUC	0.9994	0.9518
accuracy	0.9658	0.8734
balanced accuracy	0.9316	0.7597
recall_(sens)	1.0	0.987
specificity	0.8632	0.5325
precision	0.9564	0.8636
f1_score	0.9649	0.8603

Protein: P49768 - metric: precision

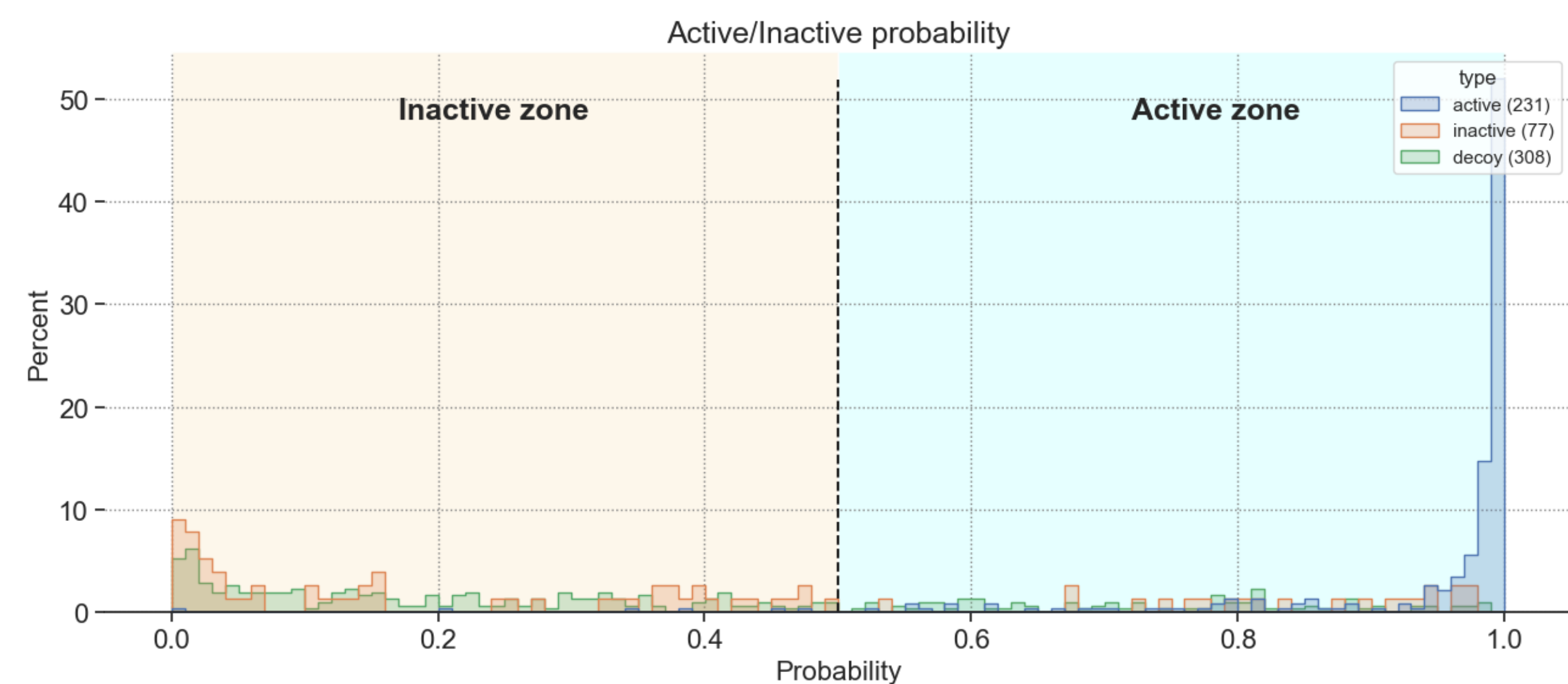
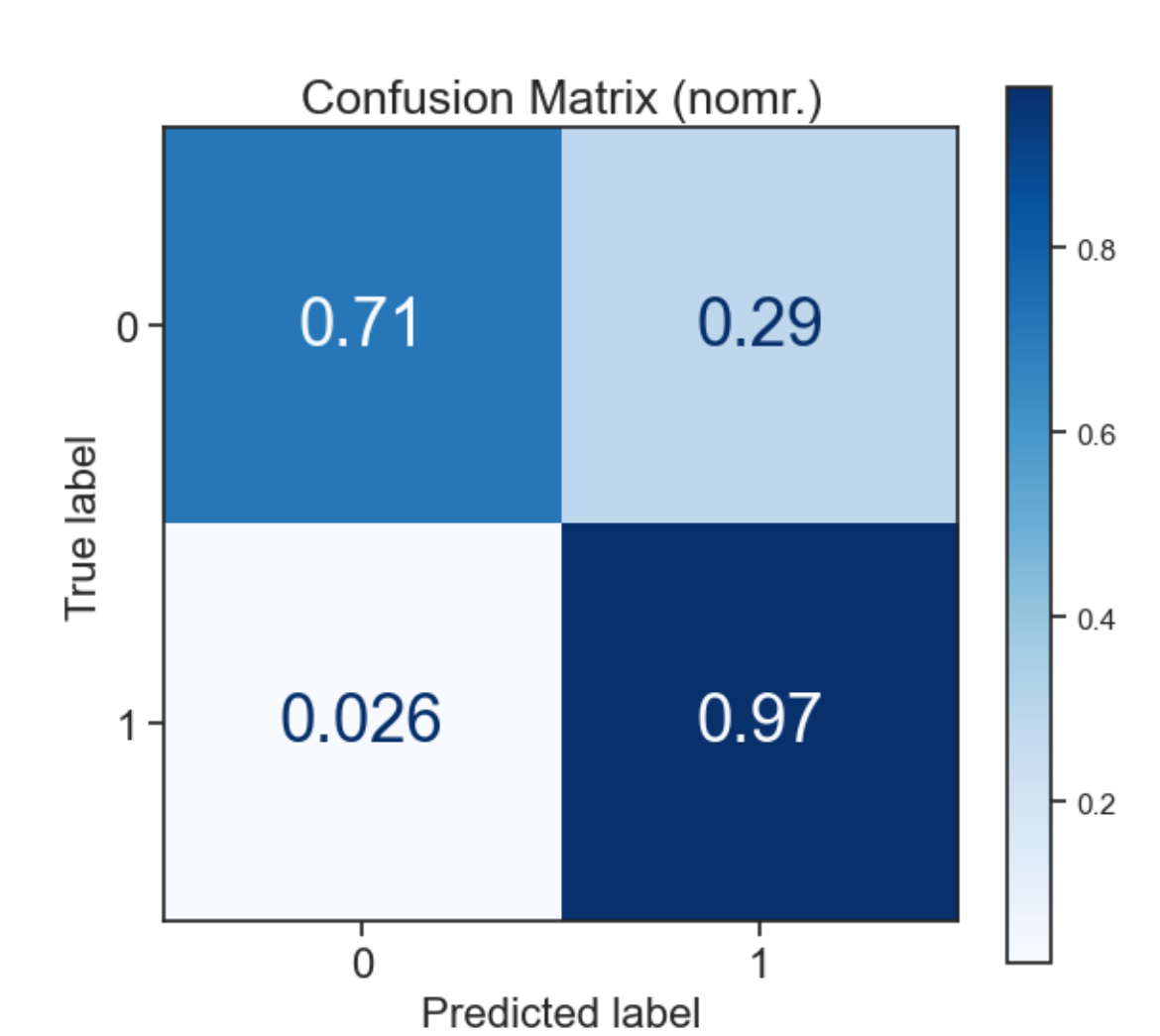
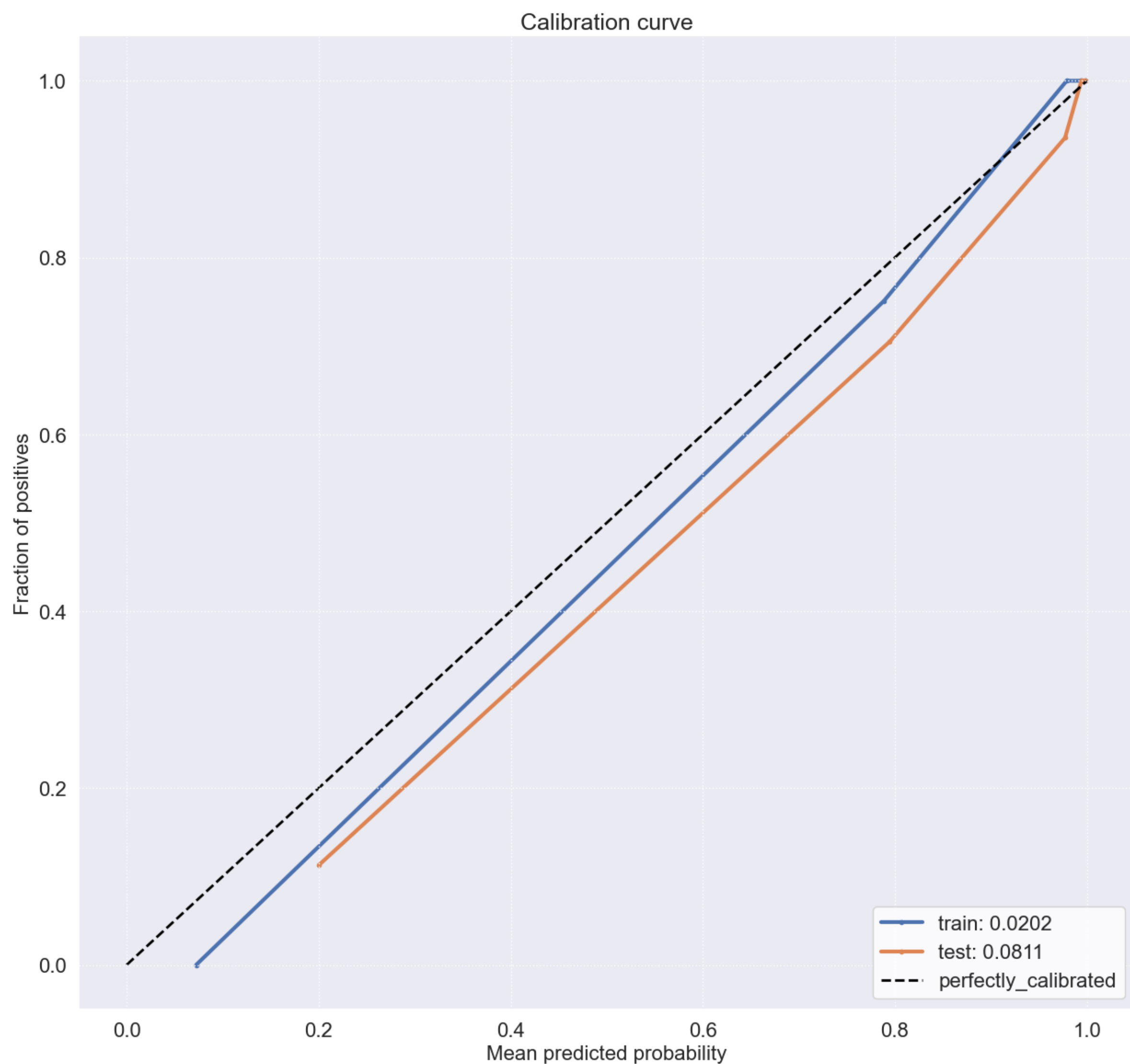
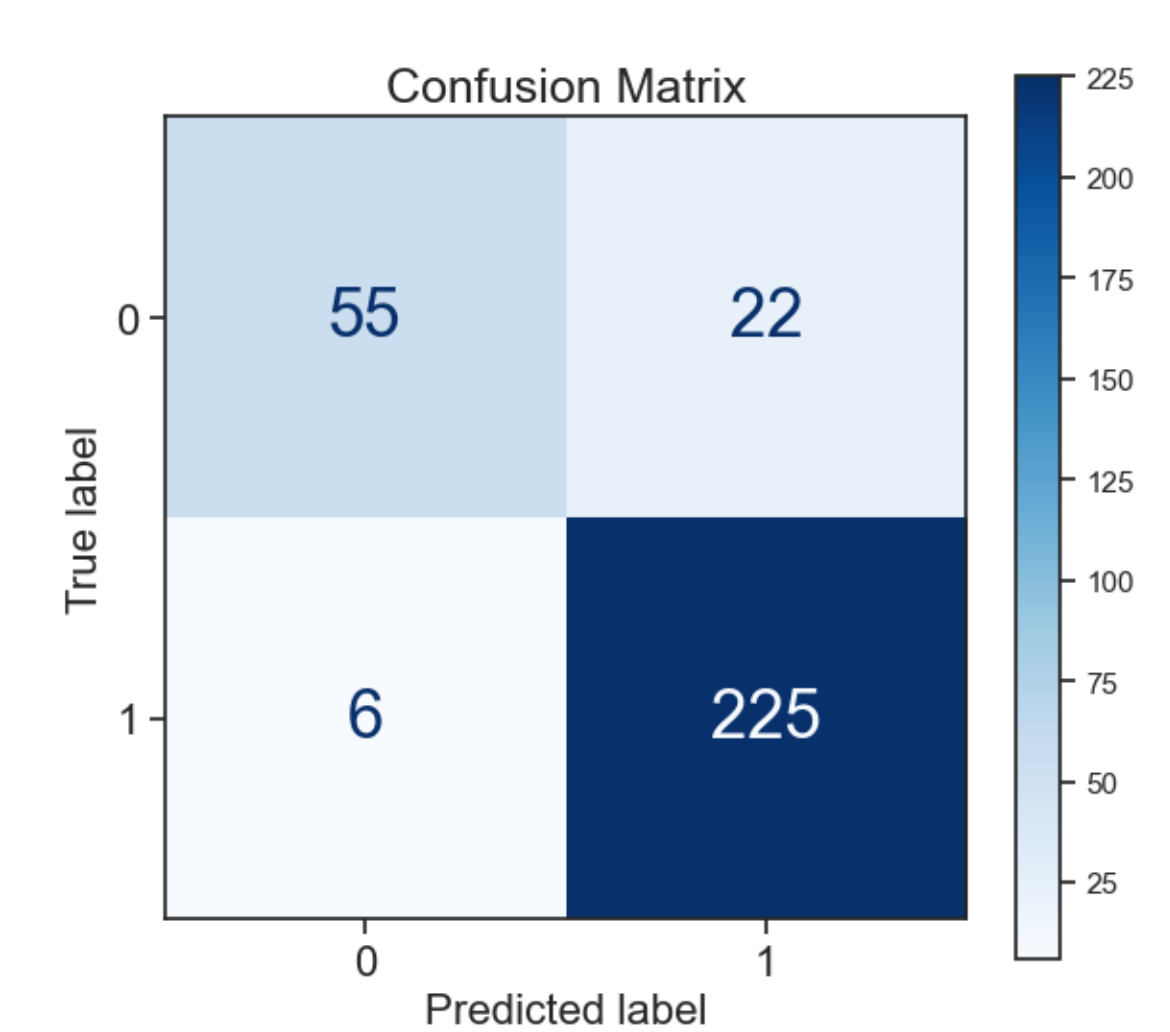
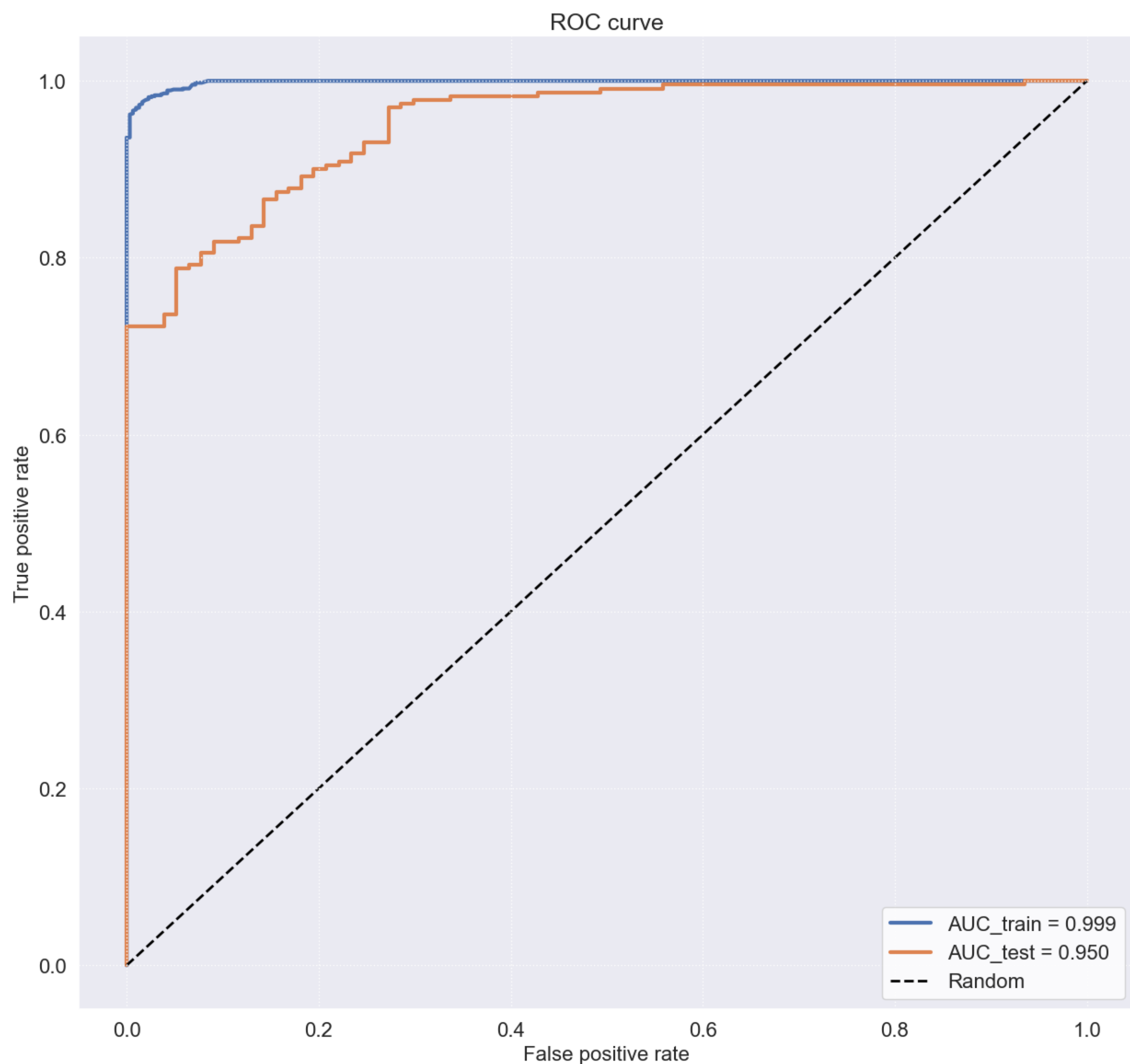
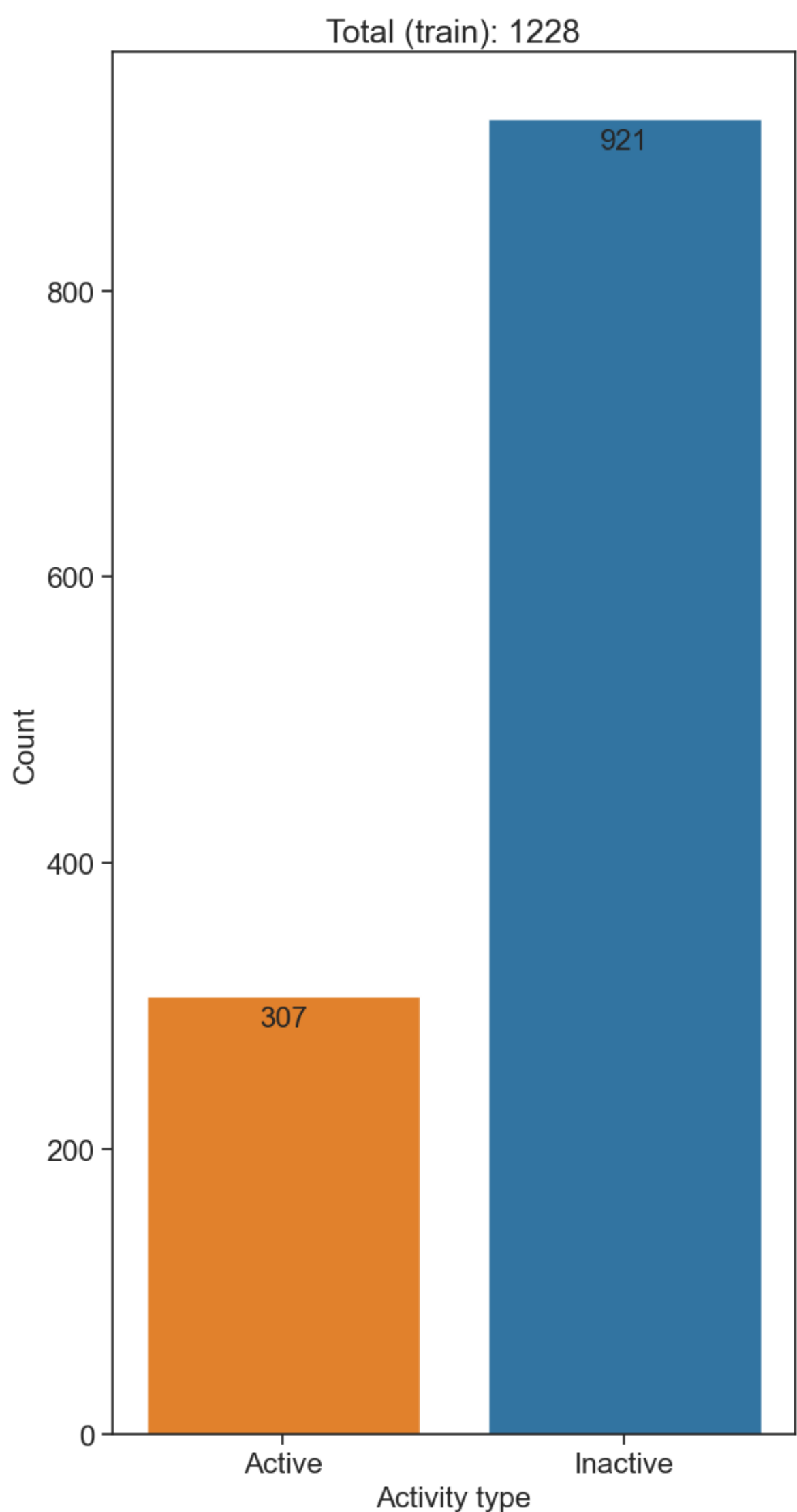


XGBoost Parameters	Value	
alpha	1.9864	
colsample_bytree	0.9906	
gamma	0.9844	
lambda	3.6266	
learning_rate	0.7496	
max_depth	9.0	
min_child_weight	1.0	
n_estimators	546.0	
reg_alpha	0.2701	
reg_lambda	0.6551	
scale_pos_weight	1.0747	
subsample	0.9228	



Metric	Train	Test
AUC	0.9985	0.9332
accuracy	0.978	0.8831
balanced accuracy	0.9636	0.8182
recall_(sens)	0.9924	0.9481
specificity	0.9349	0.6883
precision	0.9786	0.9012
f1_score	0.9779	0.8797

Protein: P49768 - metric: SoftVotingXGBoostEnsemble



Metric	Train	Test
AUC	0.9986	0.9495
accuracy	0.9756	0.9091
balanced accuracy	0.9511	0.8442
recall_(sens)	1.0	0.974
specificity	0.9023	0.7143
precision	0.9685	0.9109
f1_score	0.9751	0.9053