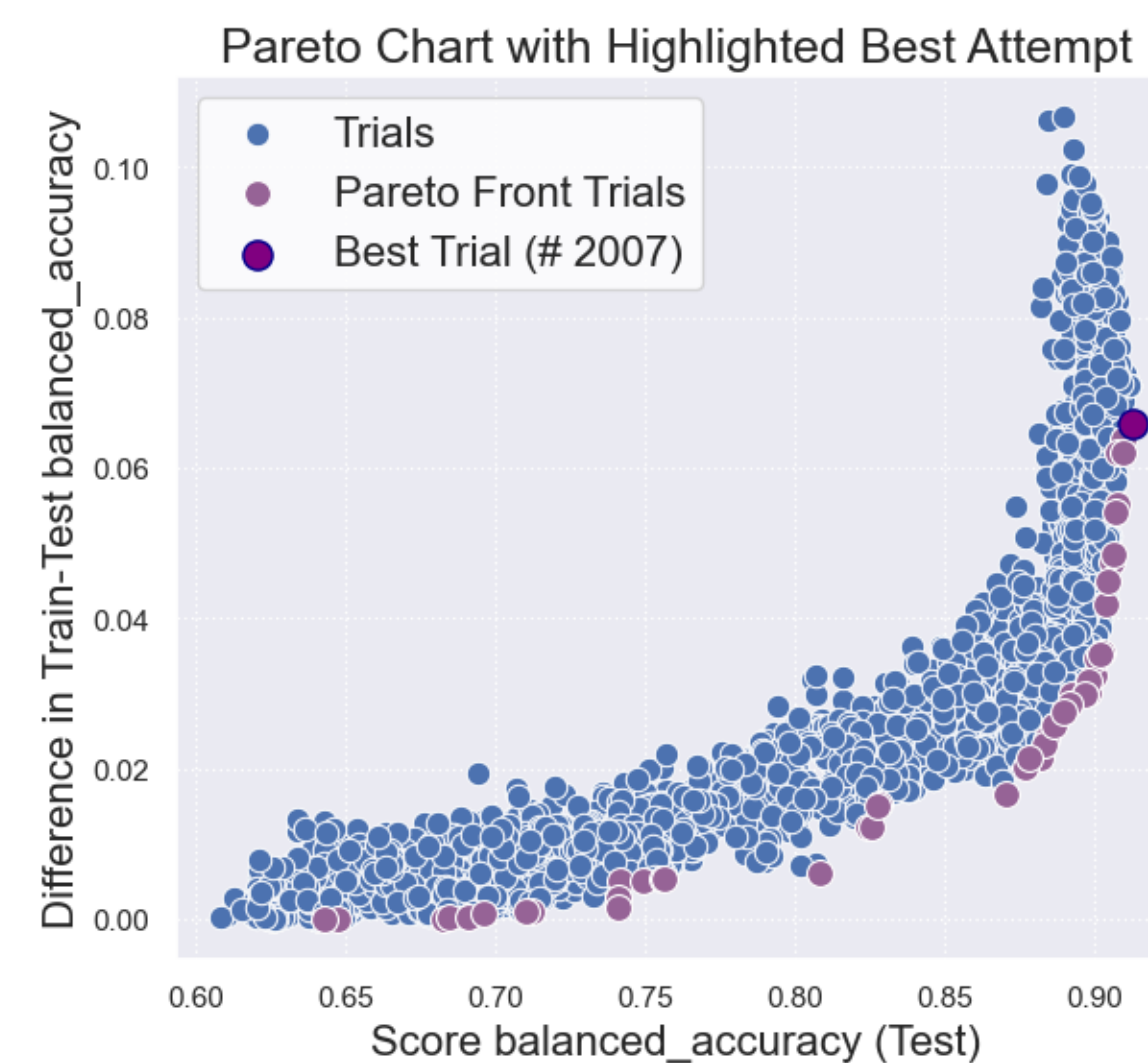
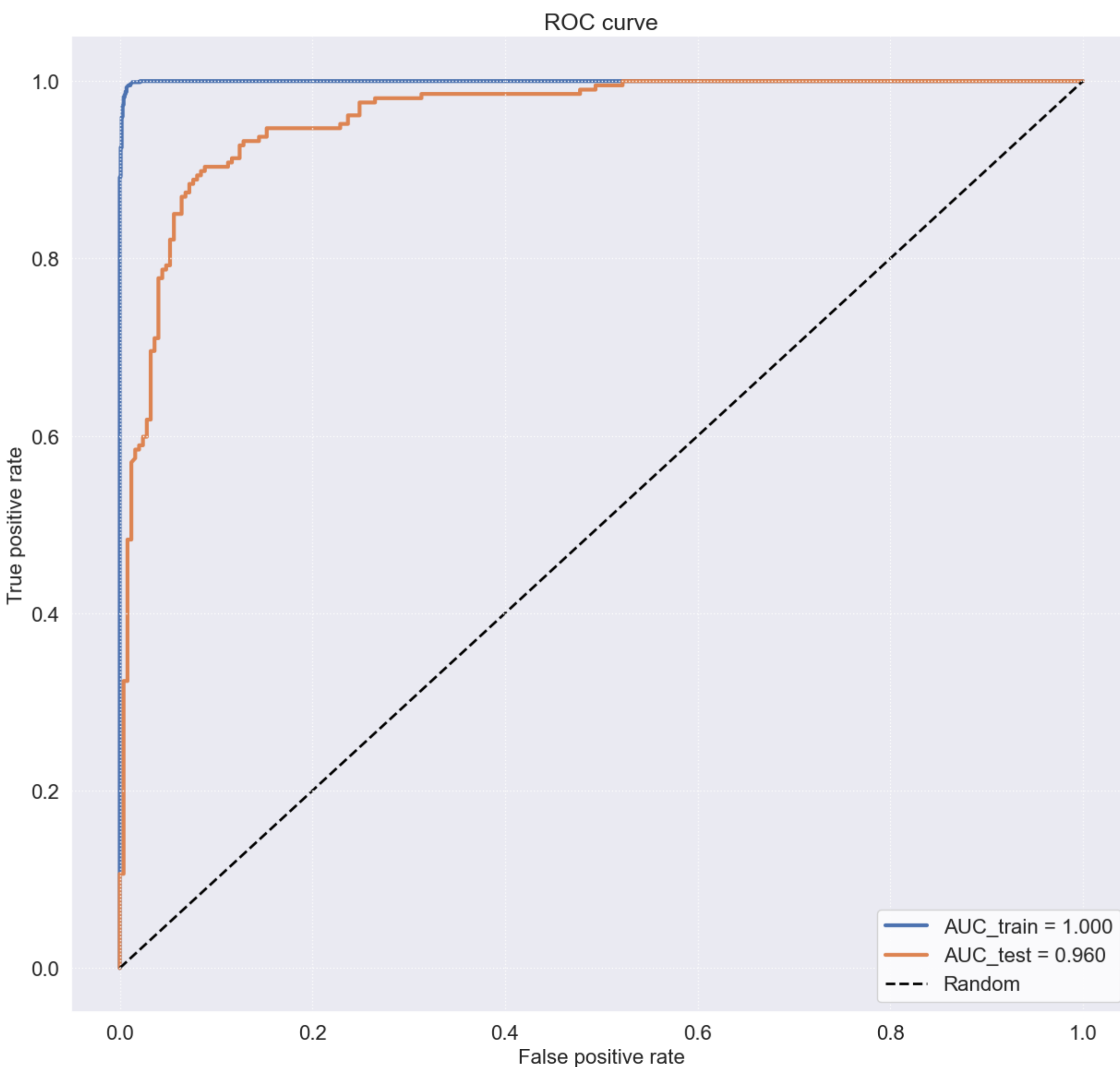
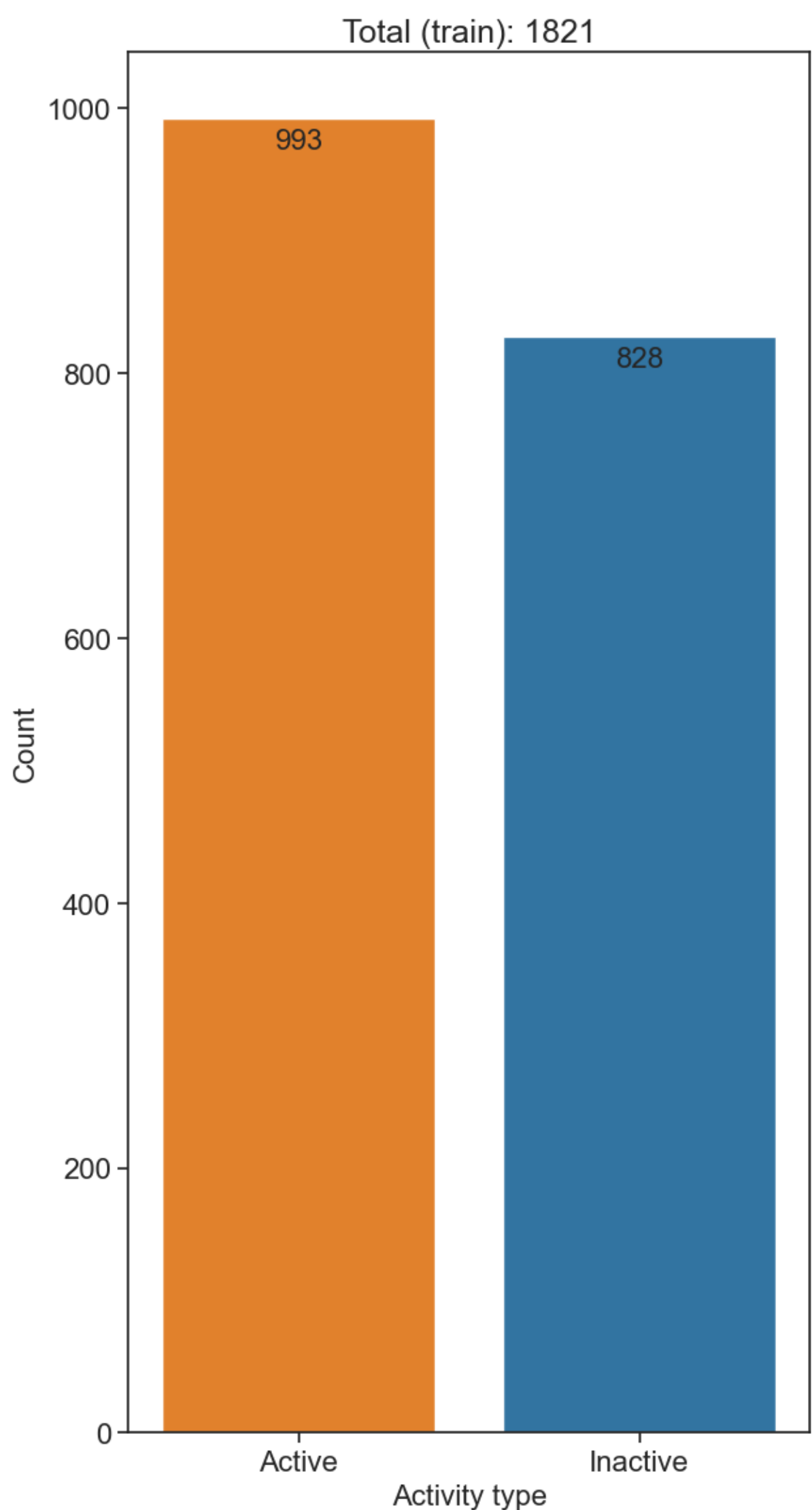
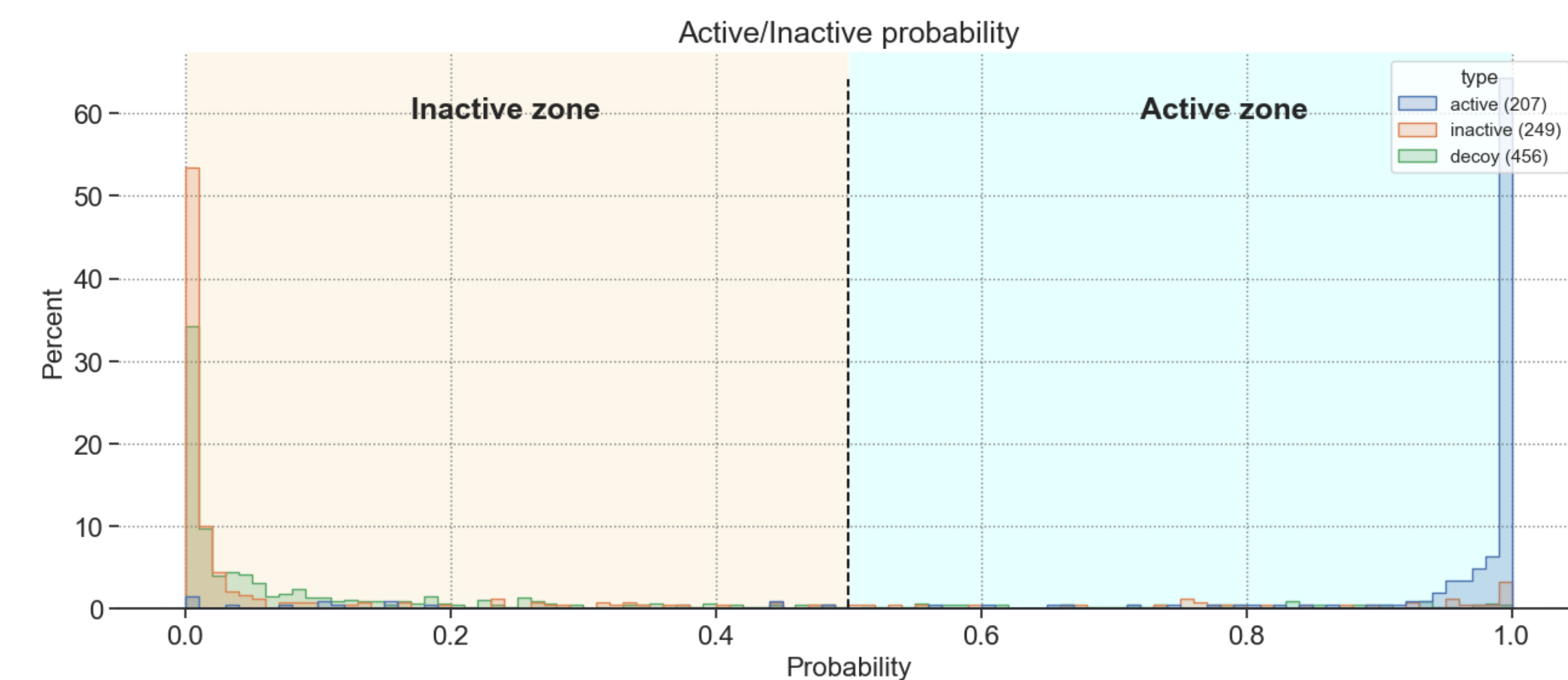
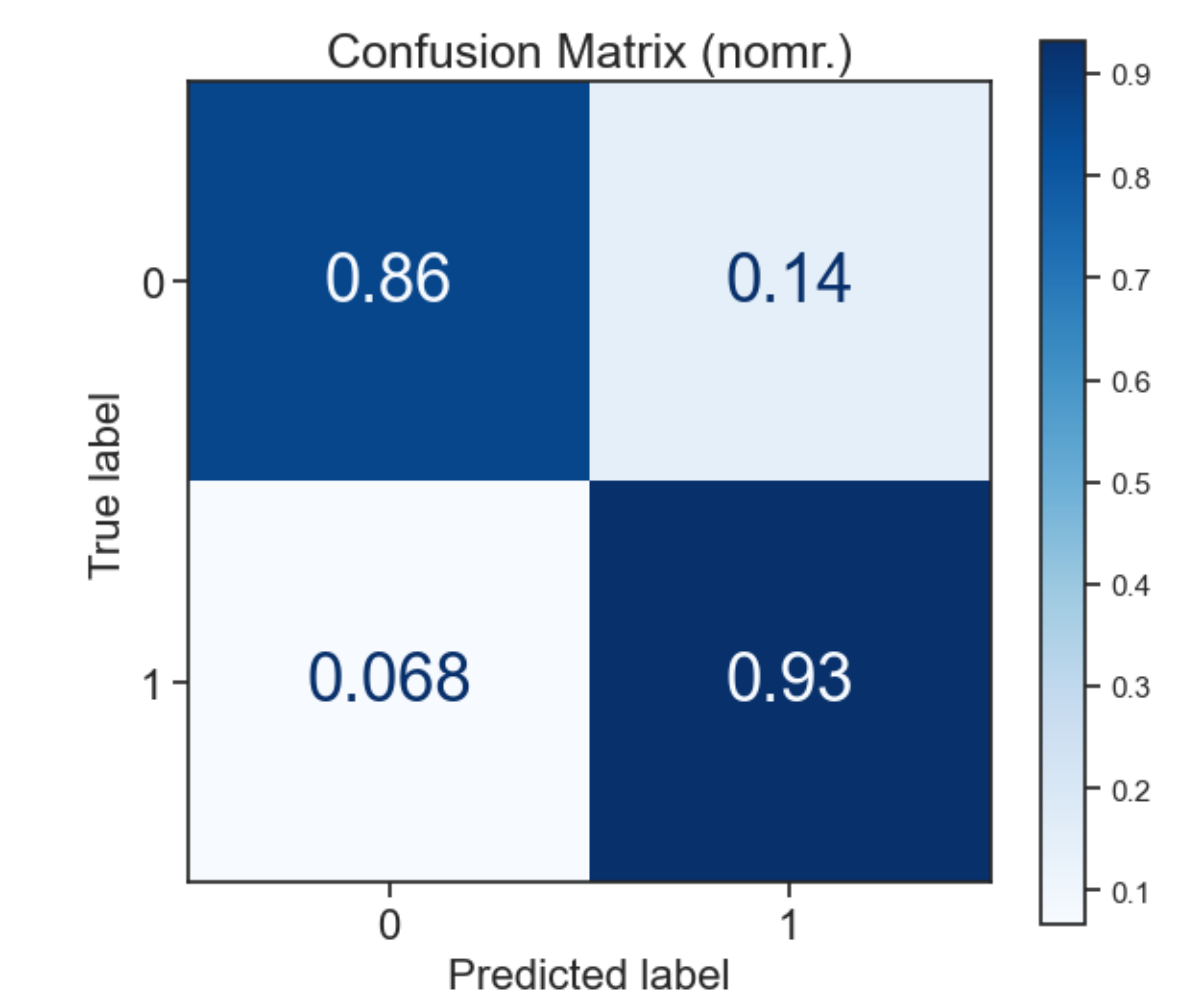
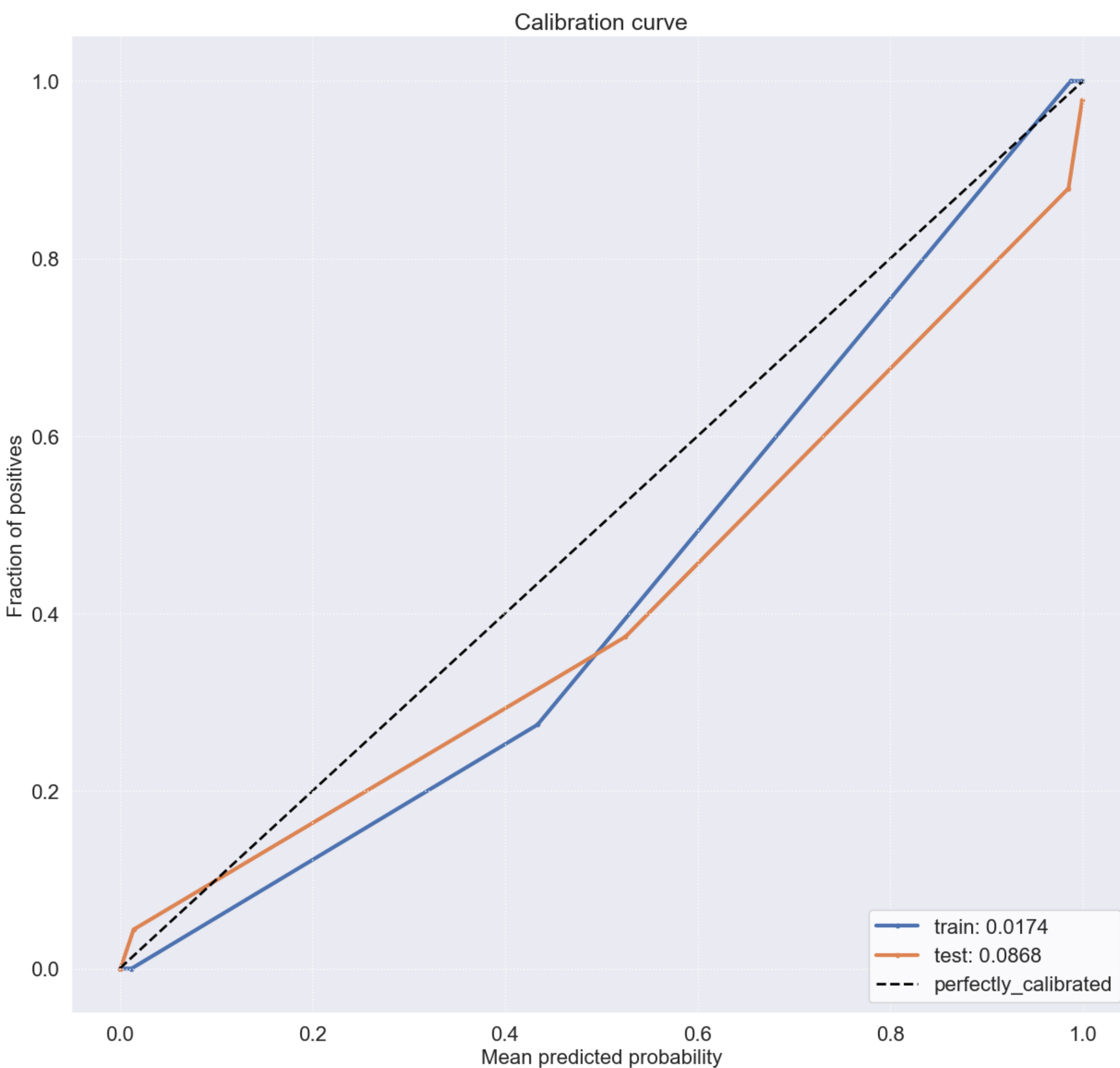
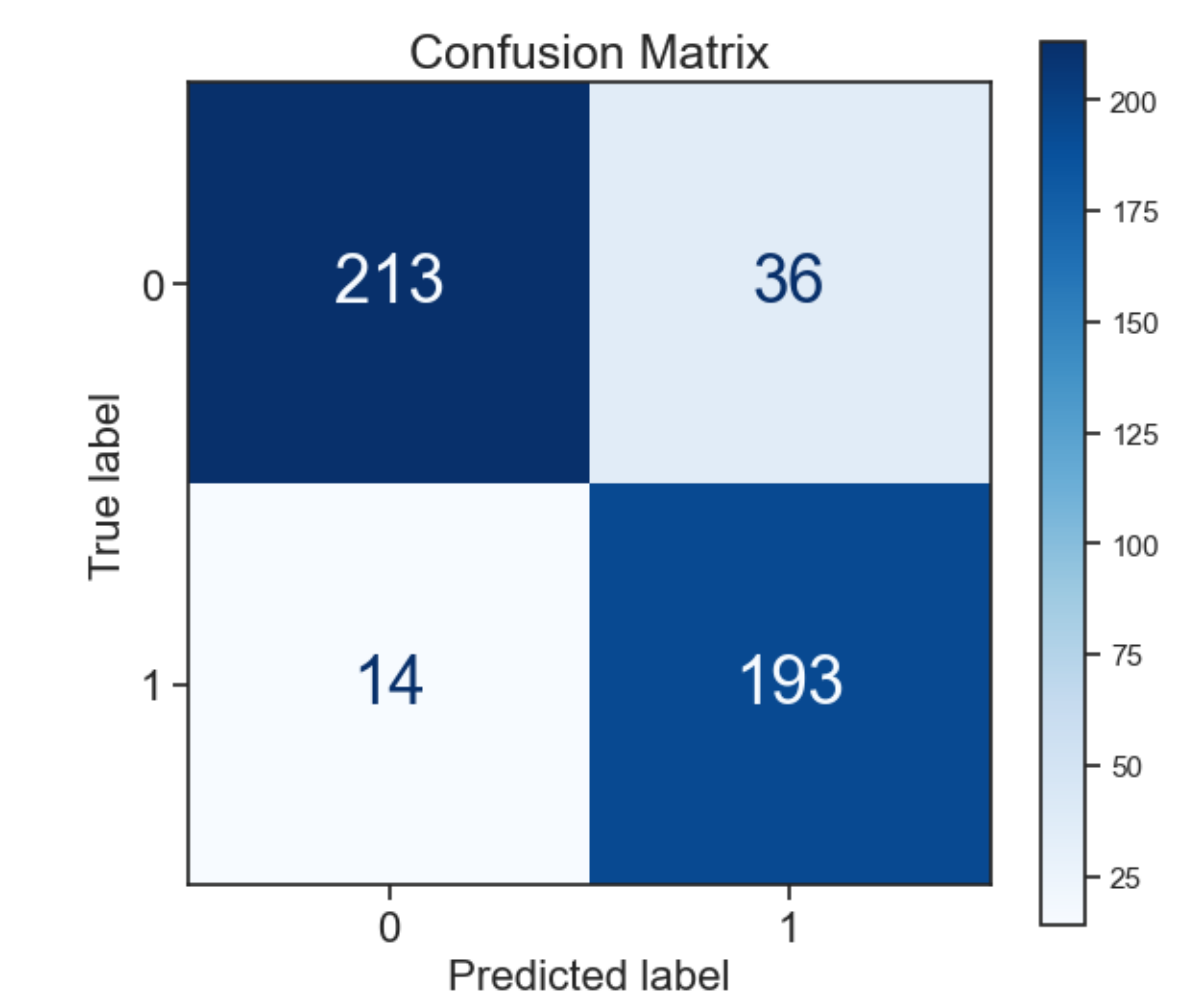


Protein: P28845 - metric: balanced_accuracy

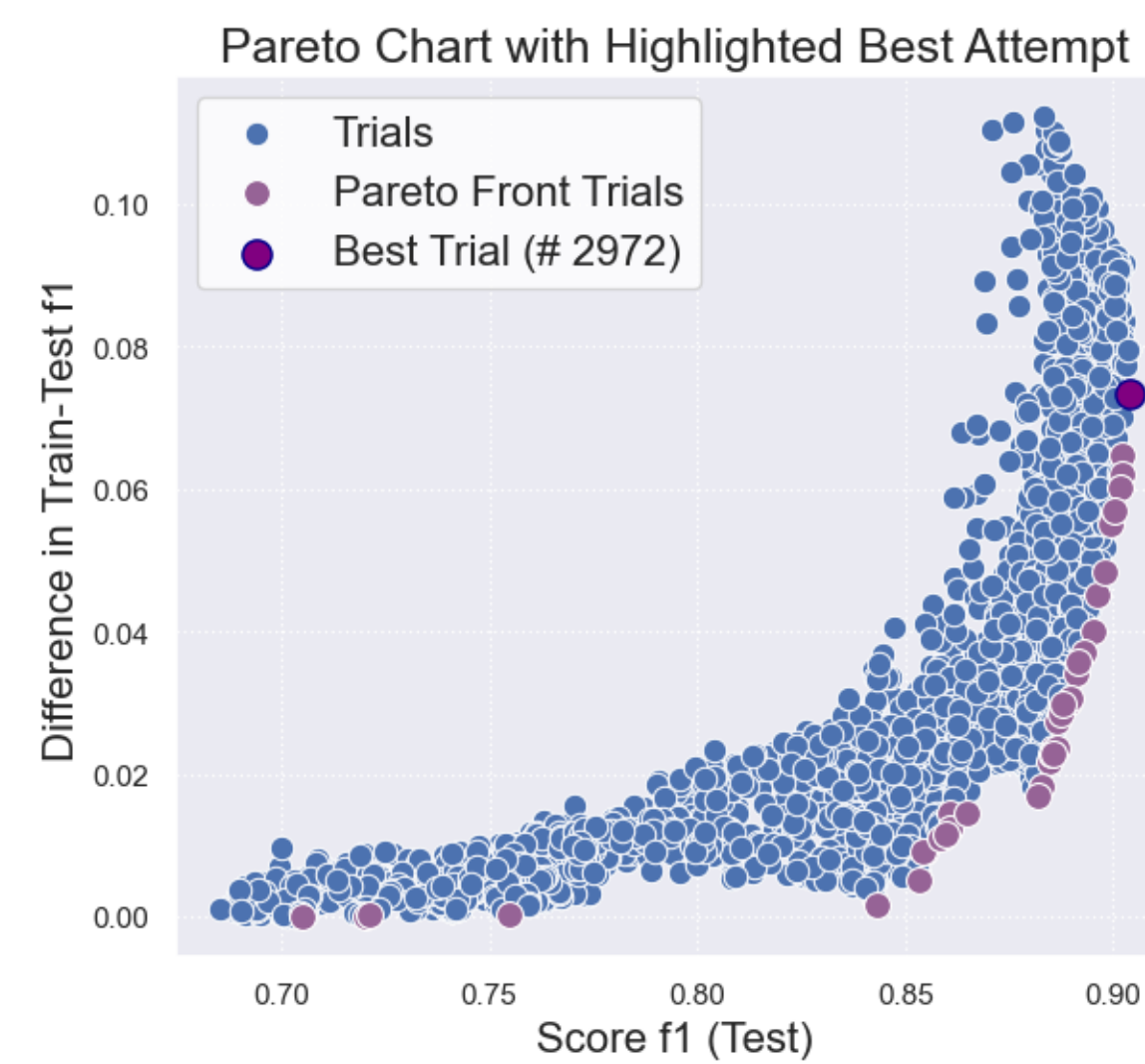
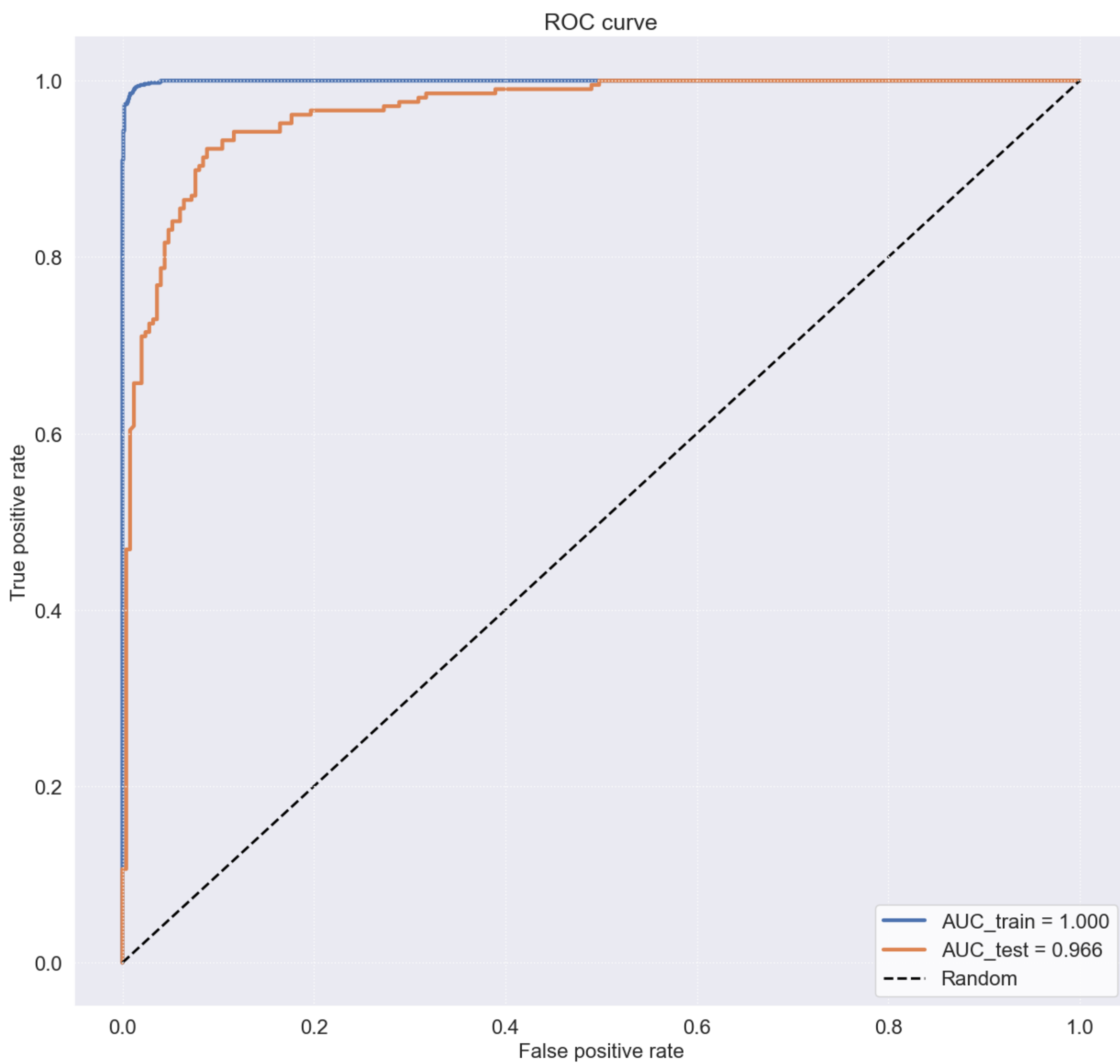
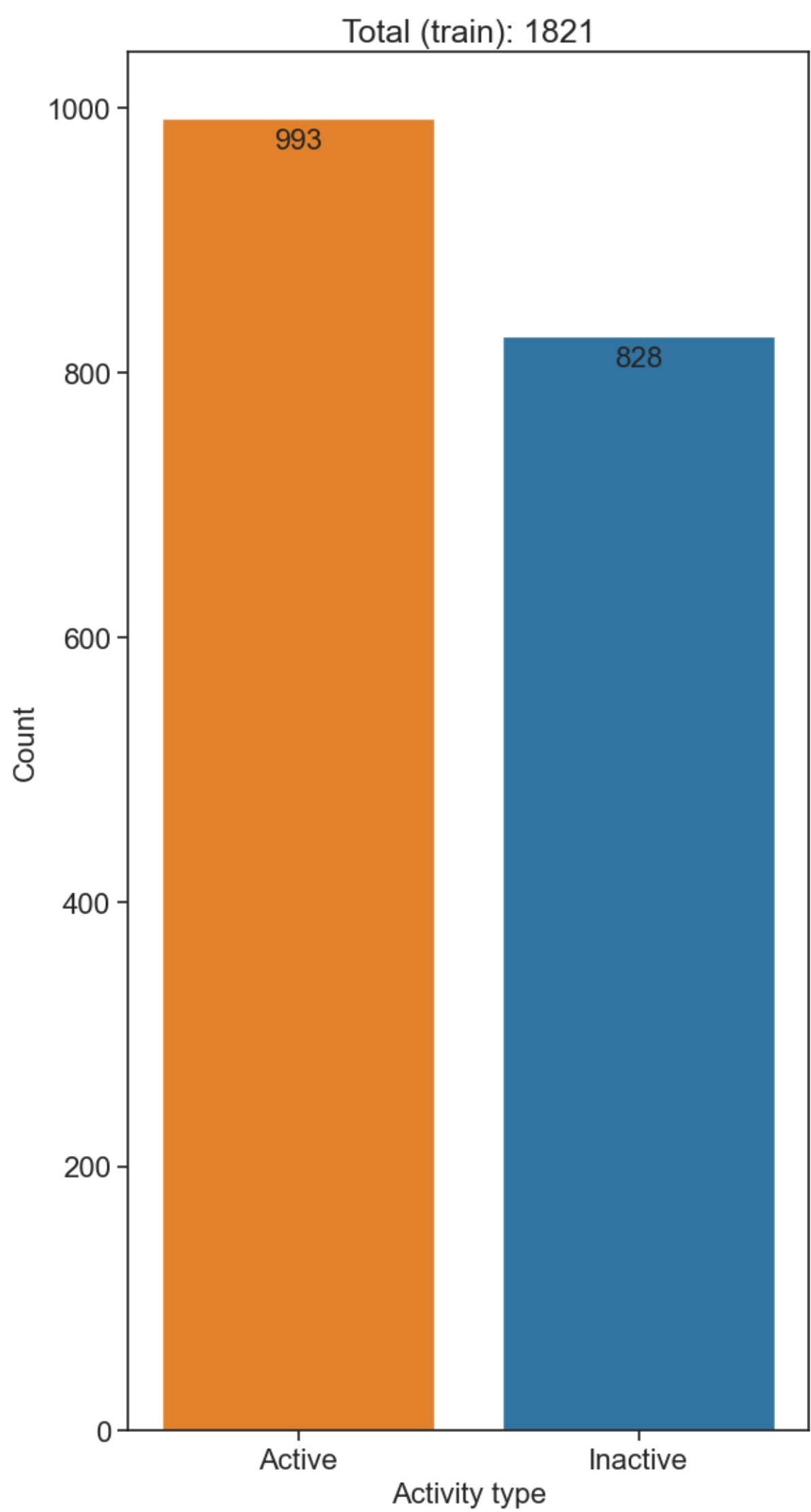


| XGBoost Parameters | Value |
|--------------------|--------|
| alpha | 1.7009 |
| colsample_bytree | 0.6692 |
| gamma | 0.6129 |
| lambda | 2.2497 |
| learning_rate | 0.3801 |
| max_depth | 7.0 |
| min_child_weight | 5.0 |
| n_estimators | 768.0 |
| reg_alpha | 0.0299 |
| reg_lambda | 0.9424 |
| scale_pos_weight | 5.1608 |
| subsample | 0.9226 |

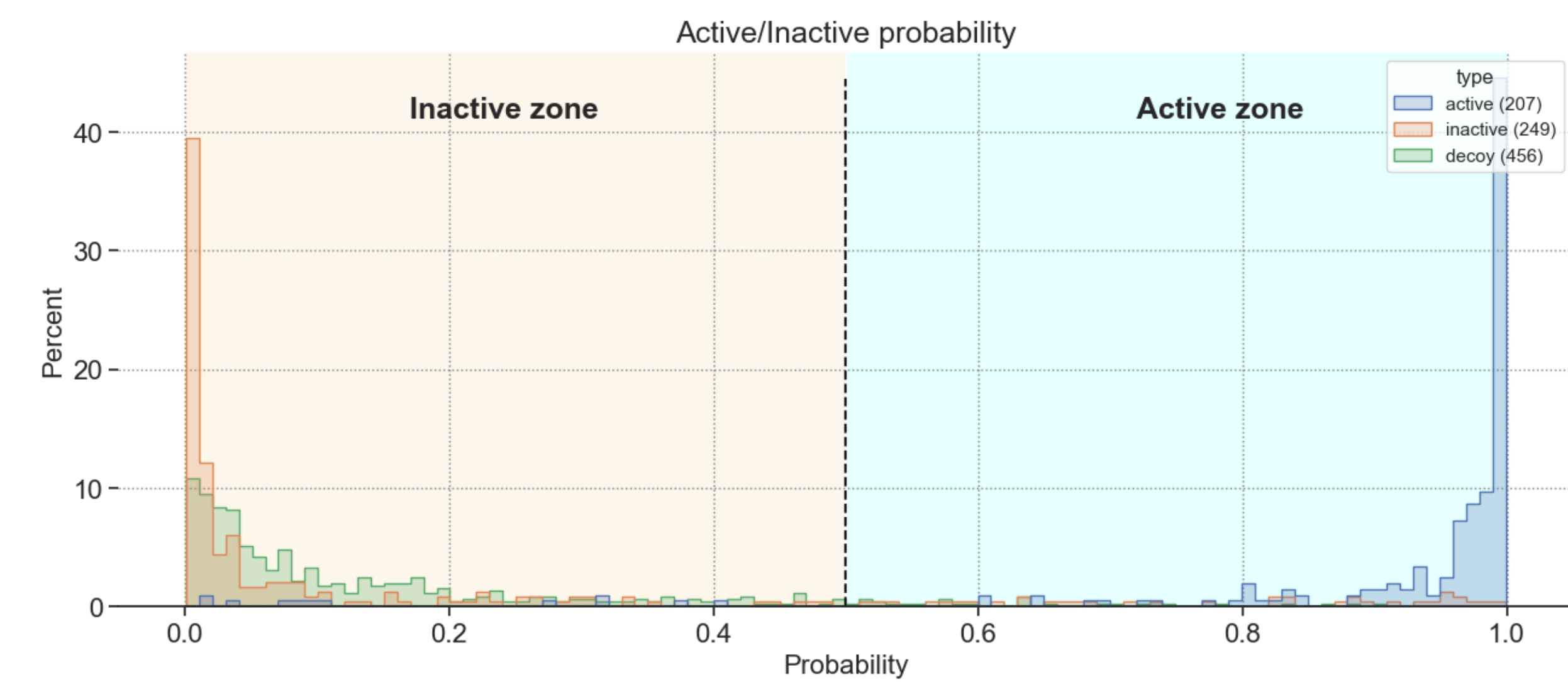
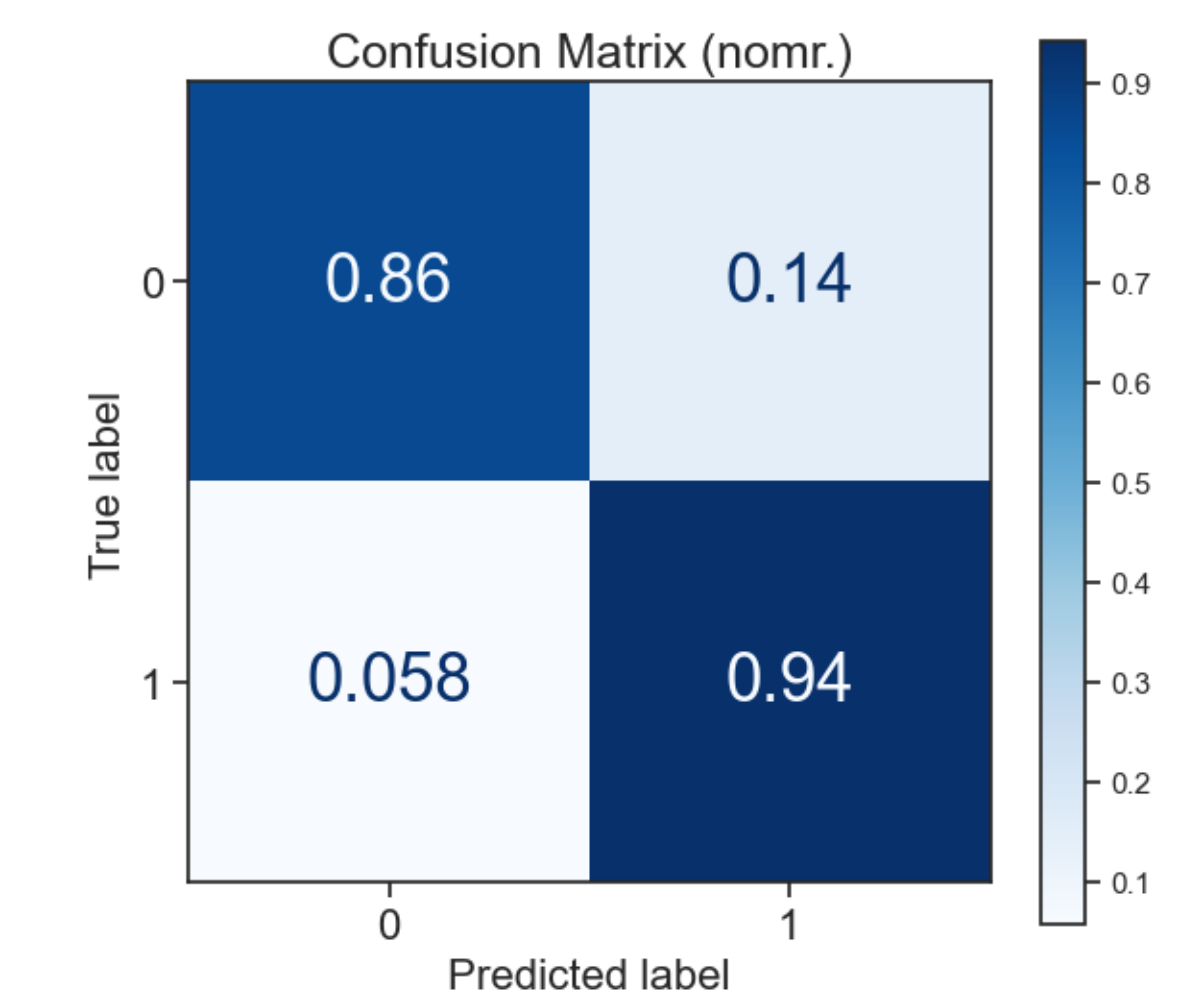
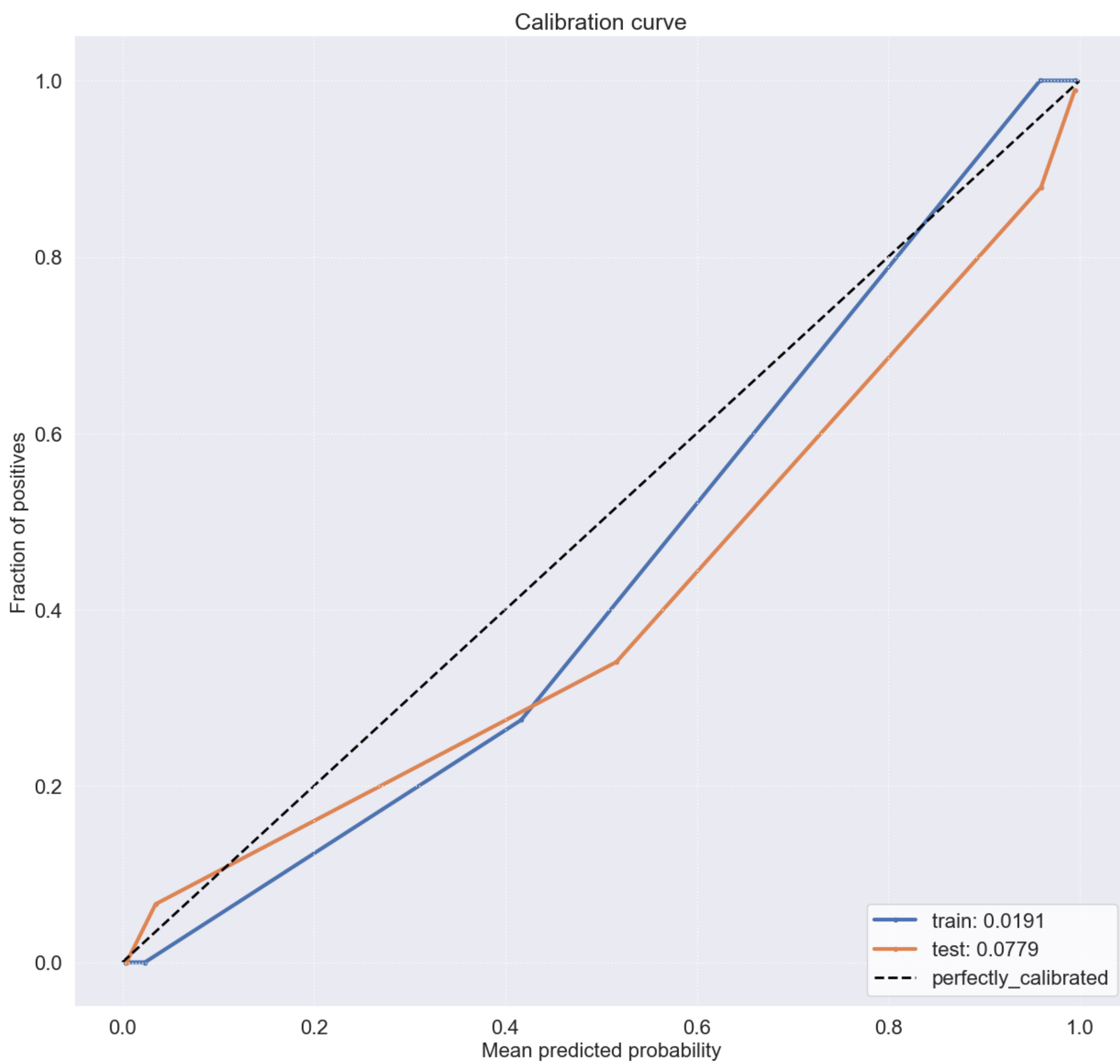
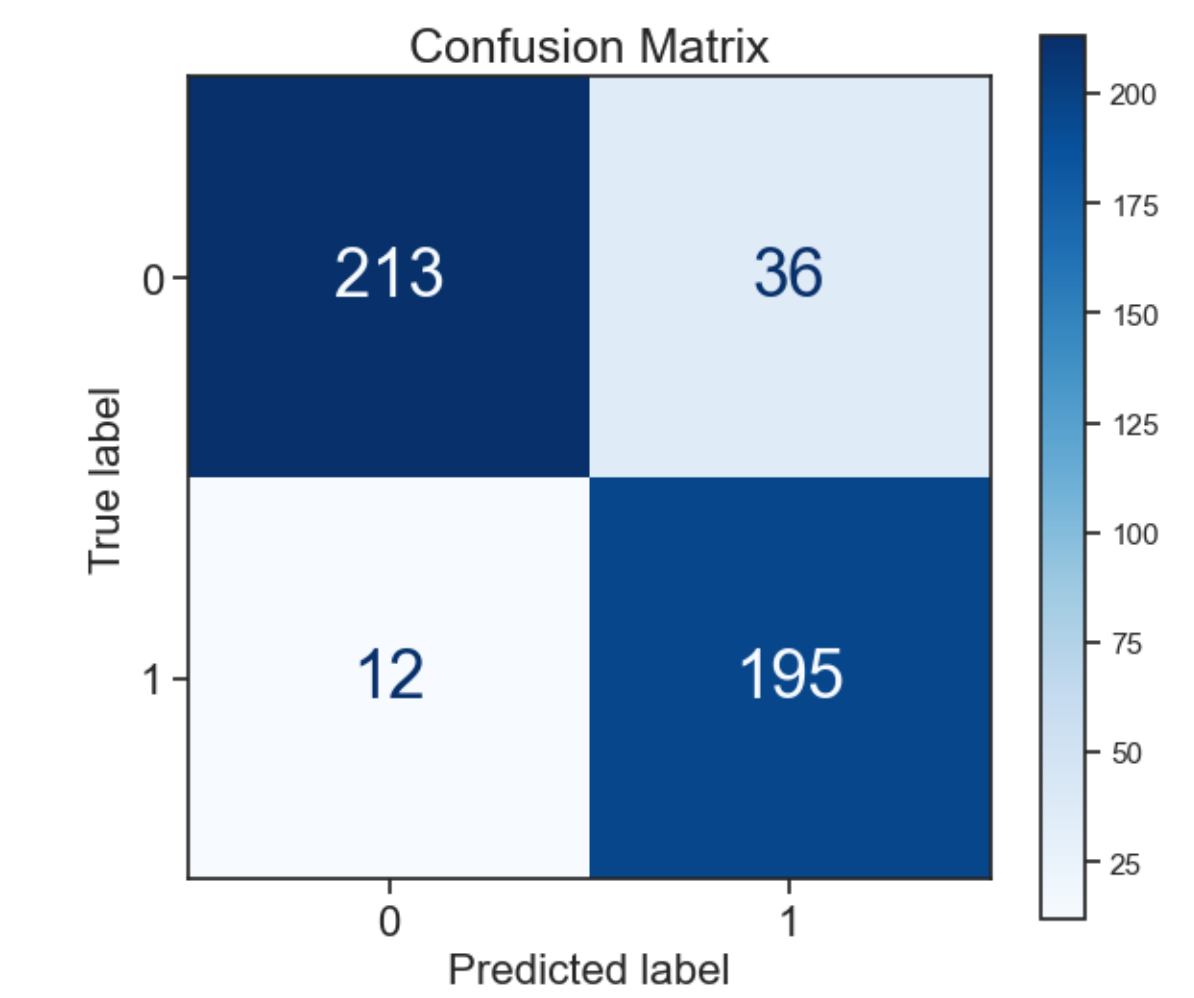


| Metric | Train | Test |
|-------------------|--------|--------|
| AUC | 0.9997 | 0.9596 |
| accuracy | 0.9753 | 0.8904 |
| balanced accuracy | 0.9773 | 0.8939 |
| recall_(sens) | 1.0 | 0.9324 |
| specificity | 0.9547 | 0.8554 |
| precision | 0.9485 | 0.8428 |
| f1_score | 0.9753 | 0.8906 |

Protein: P28845 - metric: f1

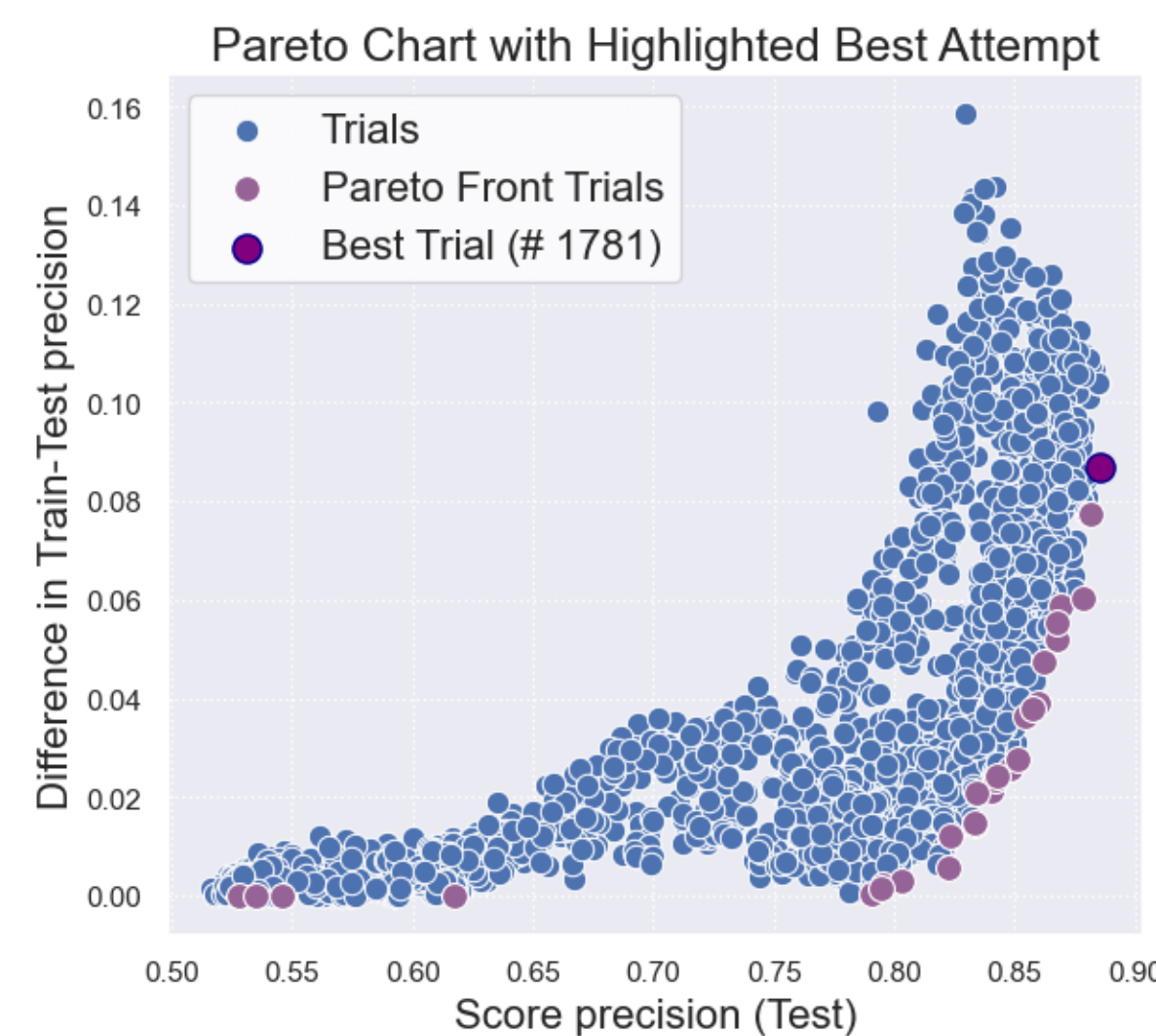
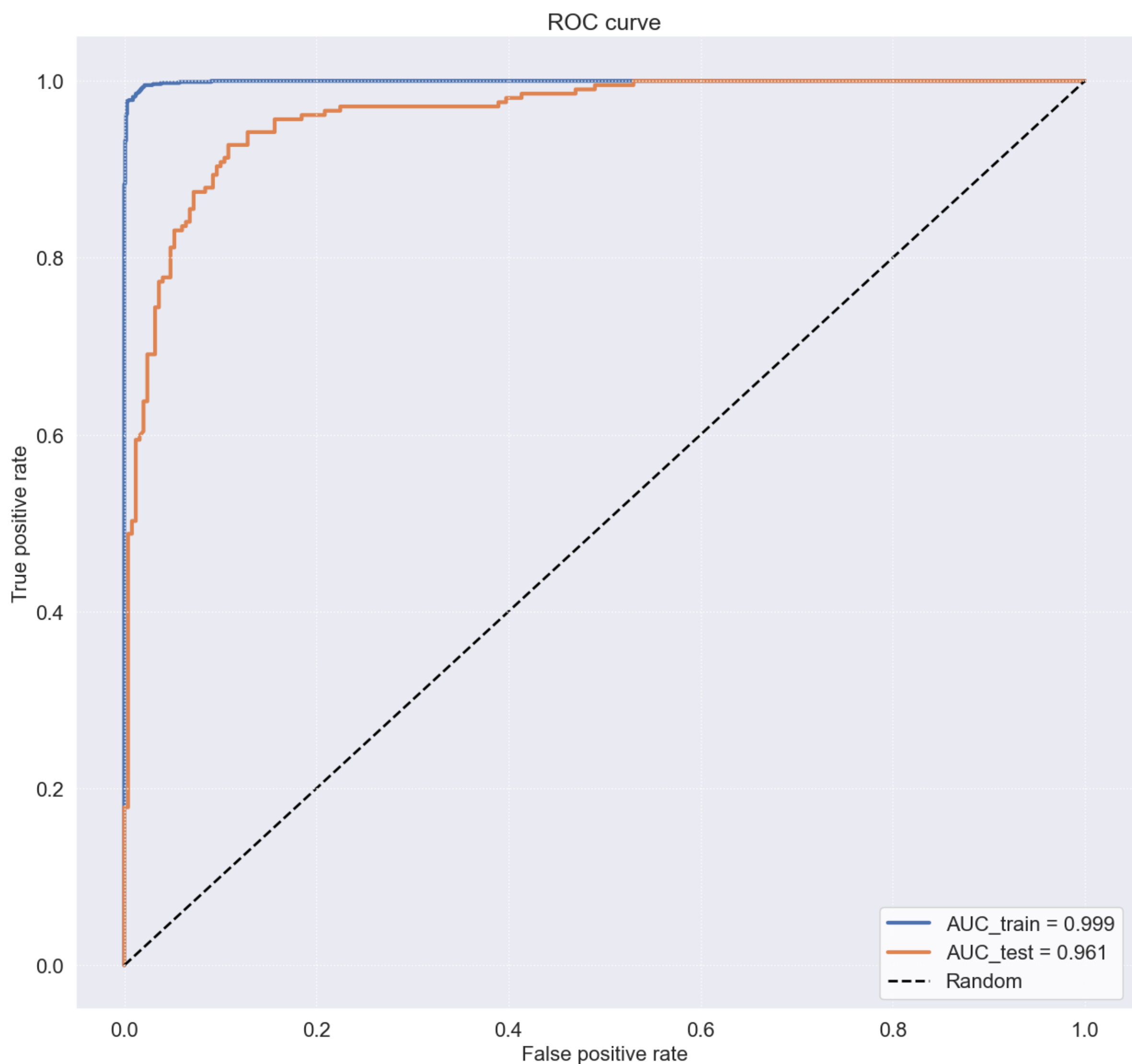
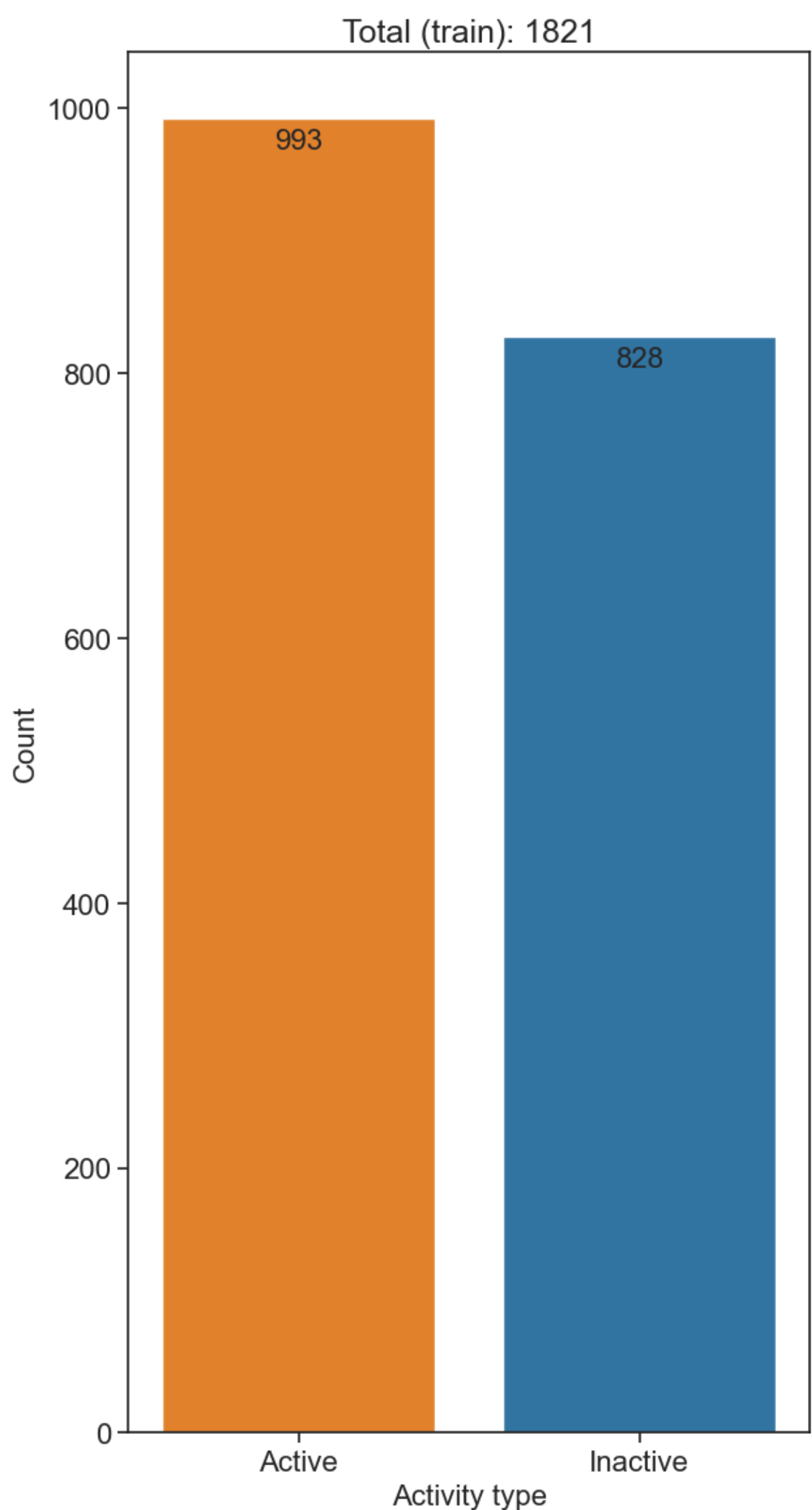


| XGBoost Parameters | Value |
|--------------------|--------|
| alpha | 4.4425 |
| colsample_bytree | 0.554 |
| gamma | 0.0515 |
| lambda | 0.7395 |
| learning_rate | 0.0249 |
| max_depth | 9.0 |
| min_child_weight | 1.0 |
| n_estimators | 538.0 |
| reg_alpha | 0.0517 |
| reg_lambda | 0.8157 |
| scale_pos_weight | 2.3612 |
| subsample | 0.5654 |

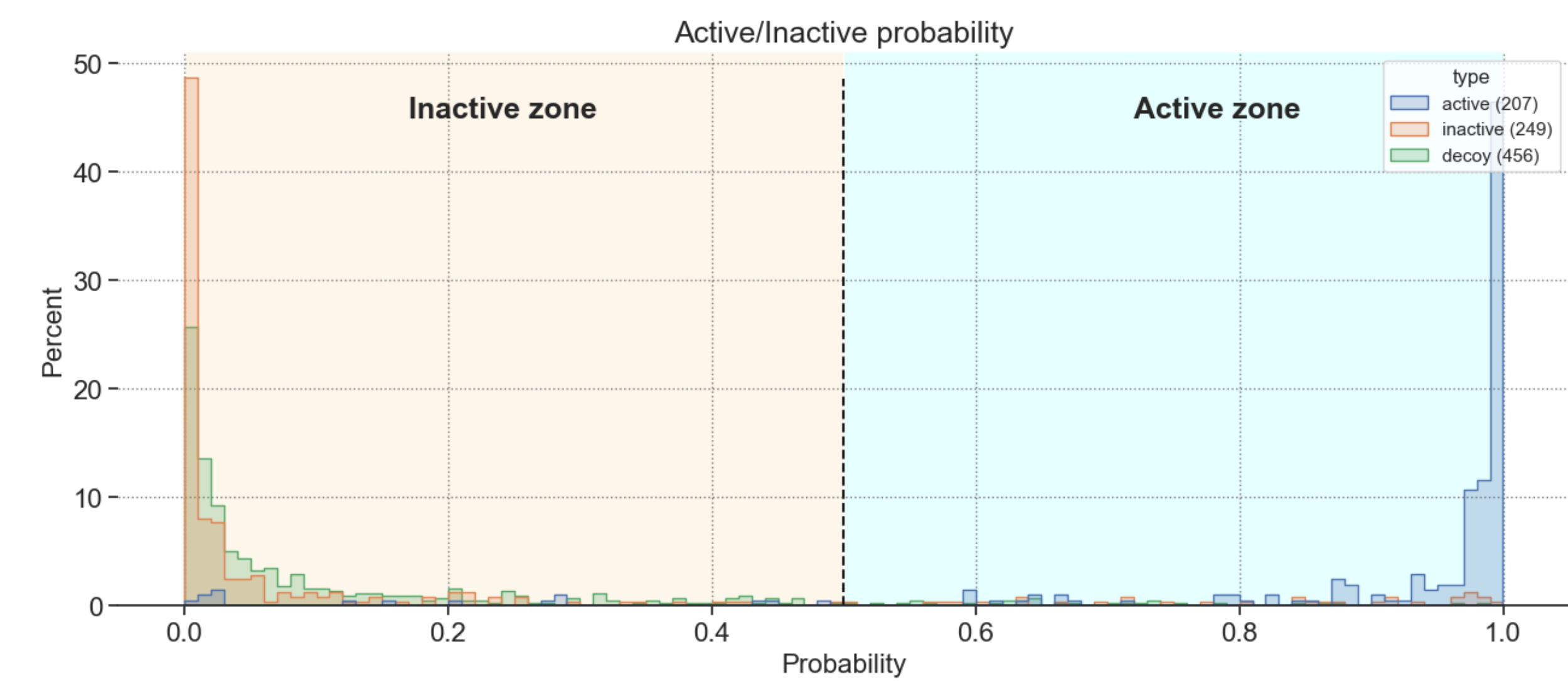
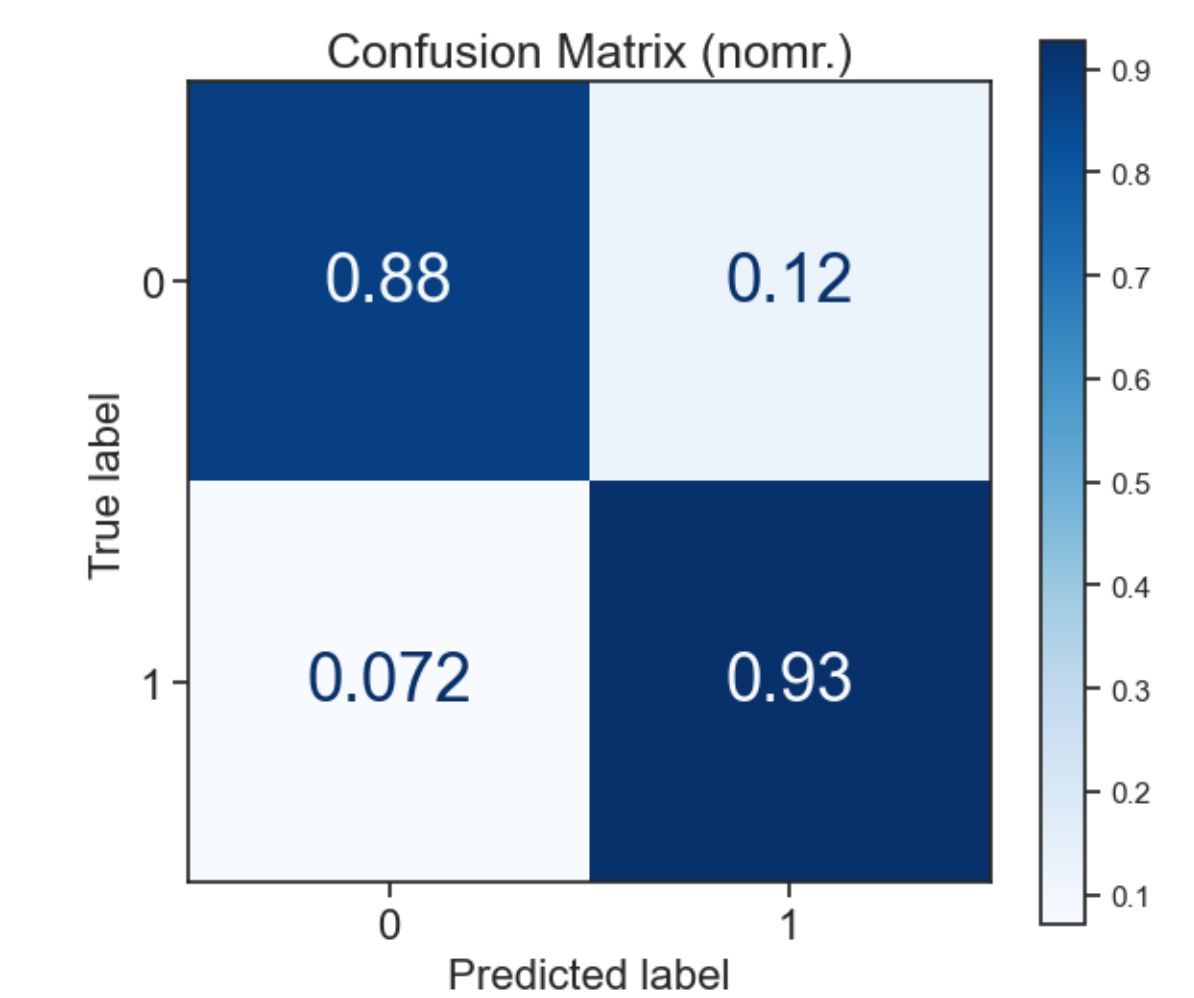
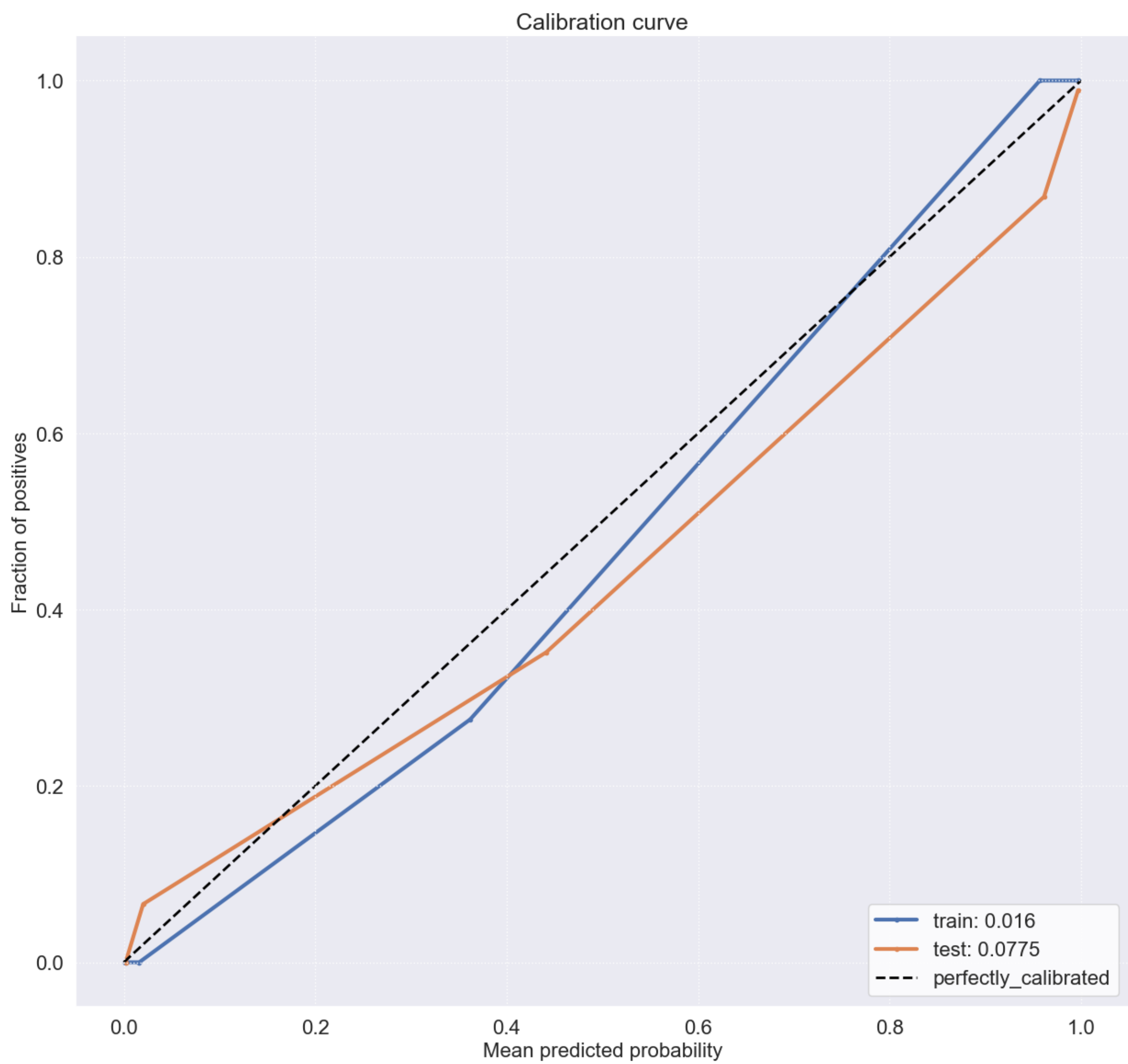
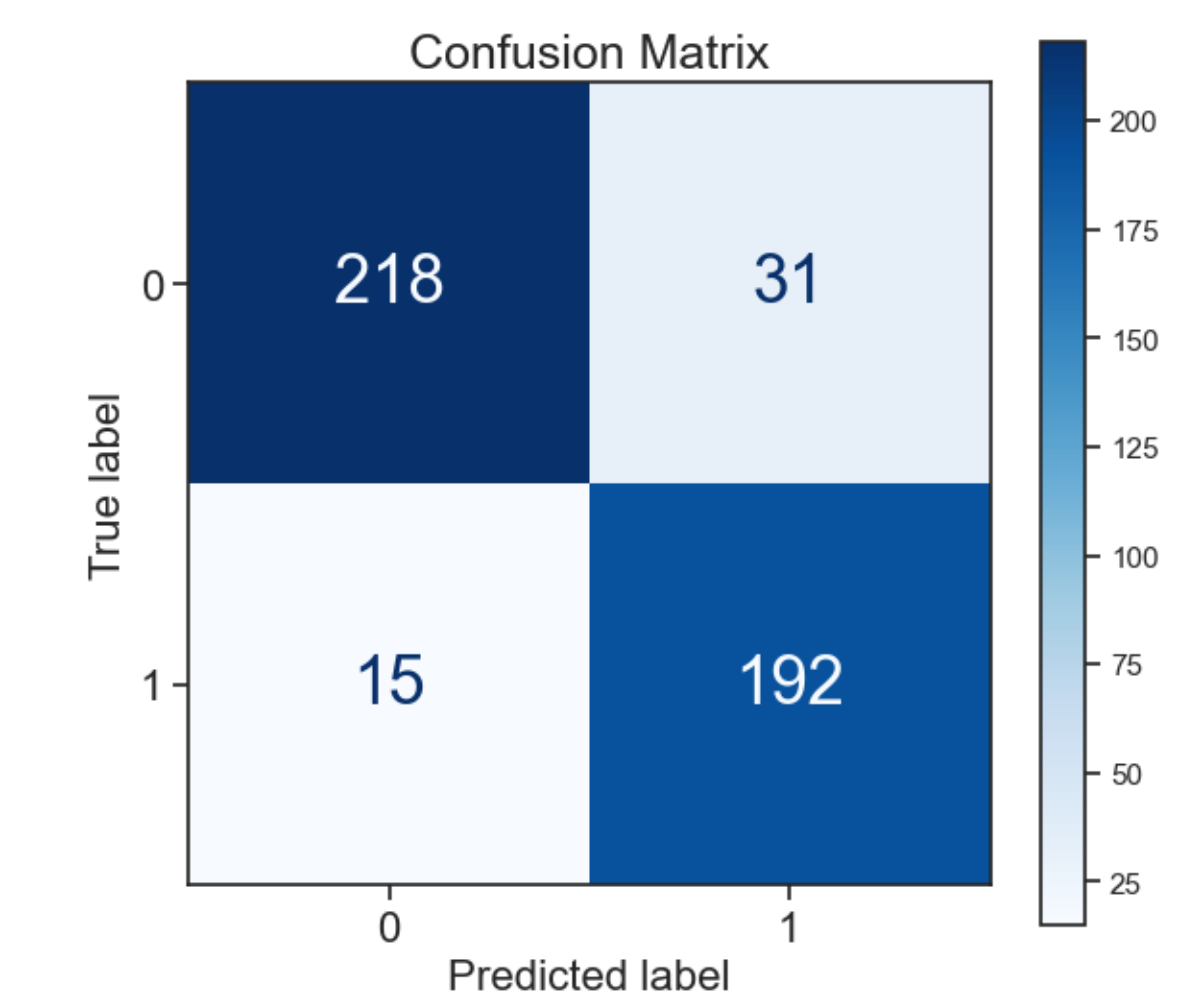


| Metric | Train | Test |
|-------------------|--------|--------|
| AUC | 0.9995 | 0.9657 |
| accuracy | 0.978 | 0.8947 |
| balanced accuracy | 0.9799 | 0.8987 |
| recall_(sens) | 1.0 | 0.942 |
| specificity | 0.9597 | 0.8554 |
| precision | 0.9539 | 0.8442 |
| f1_score | 0.9781 | 0.895 |

Protein: P28845 - metric: precision

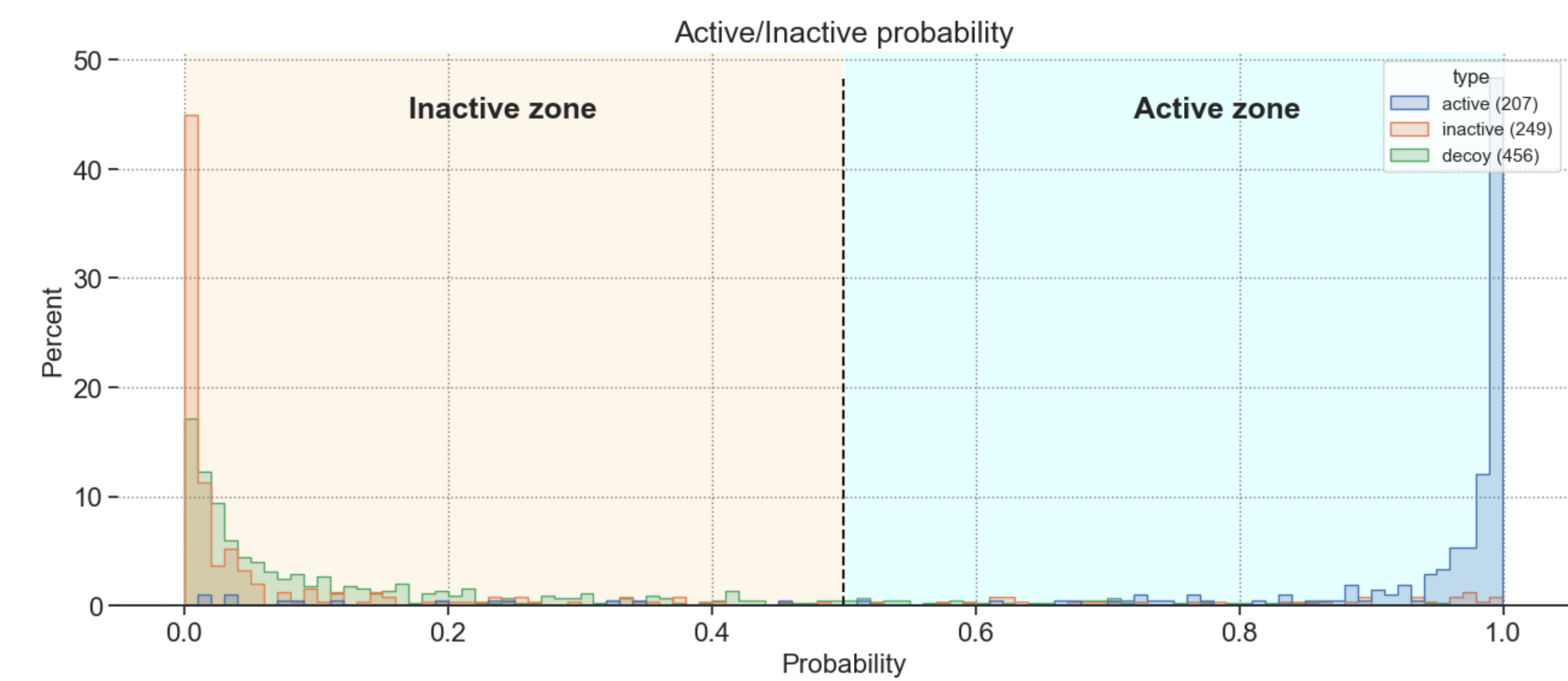
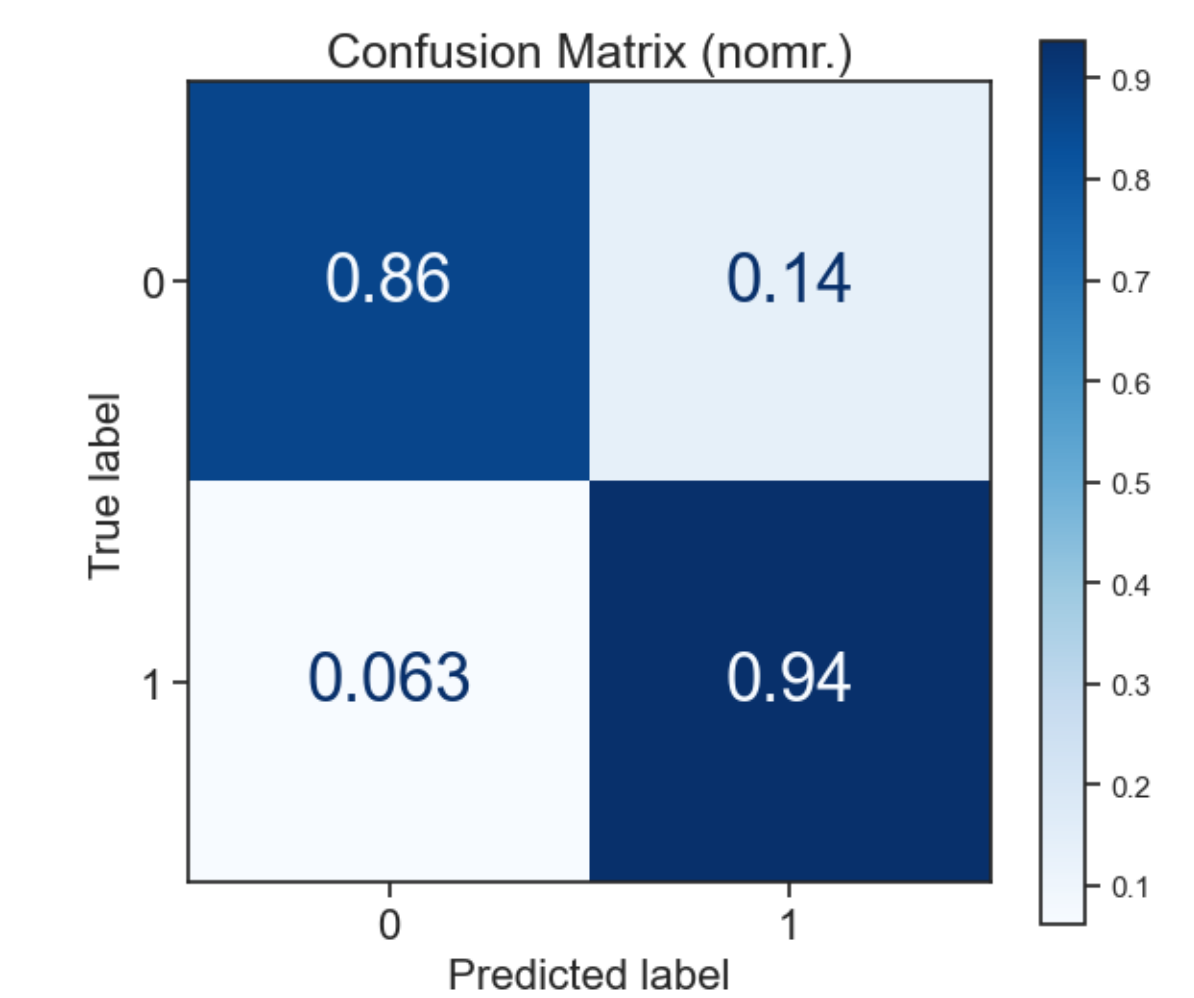
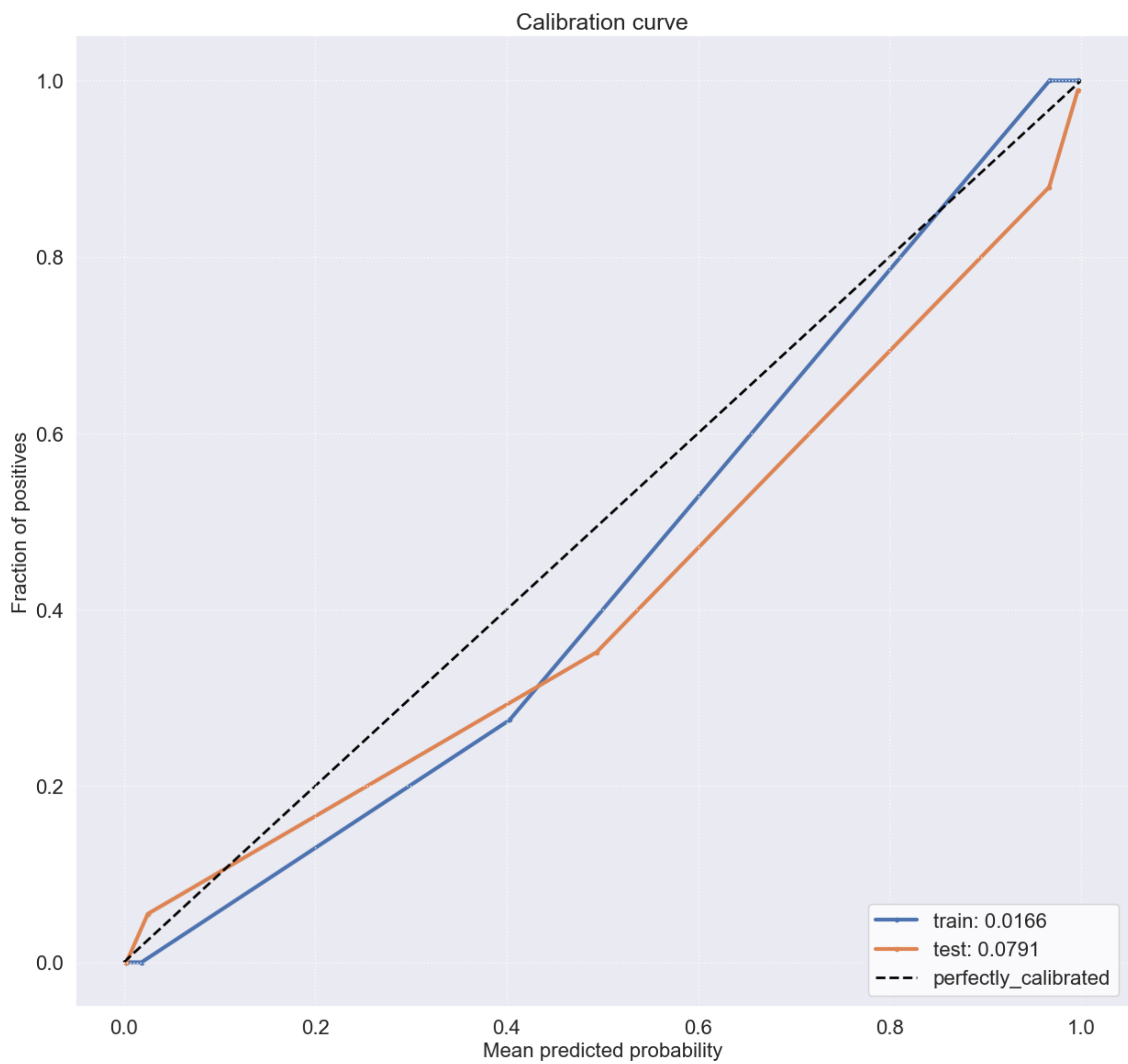
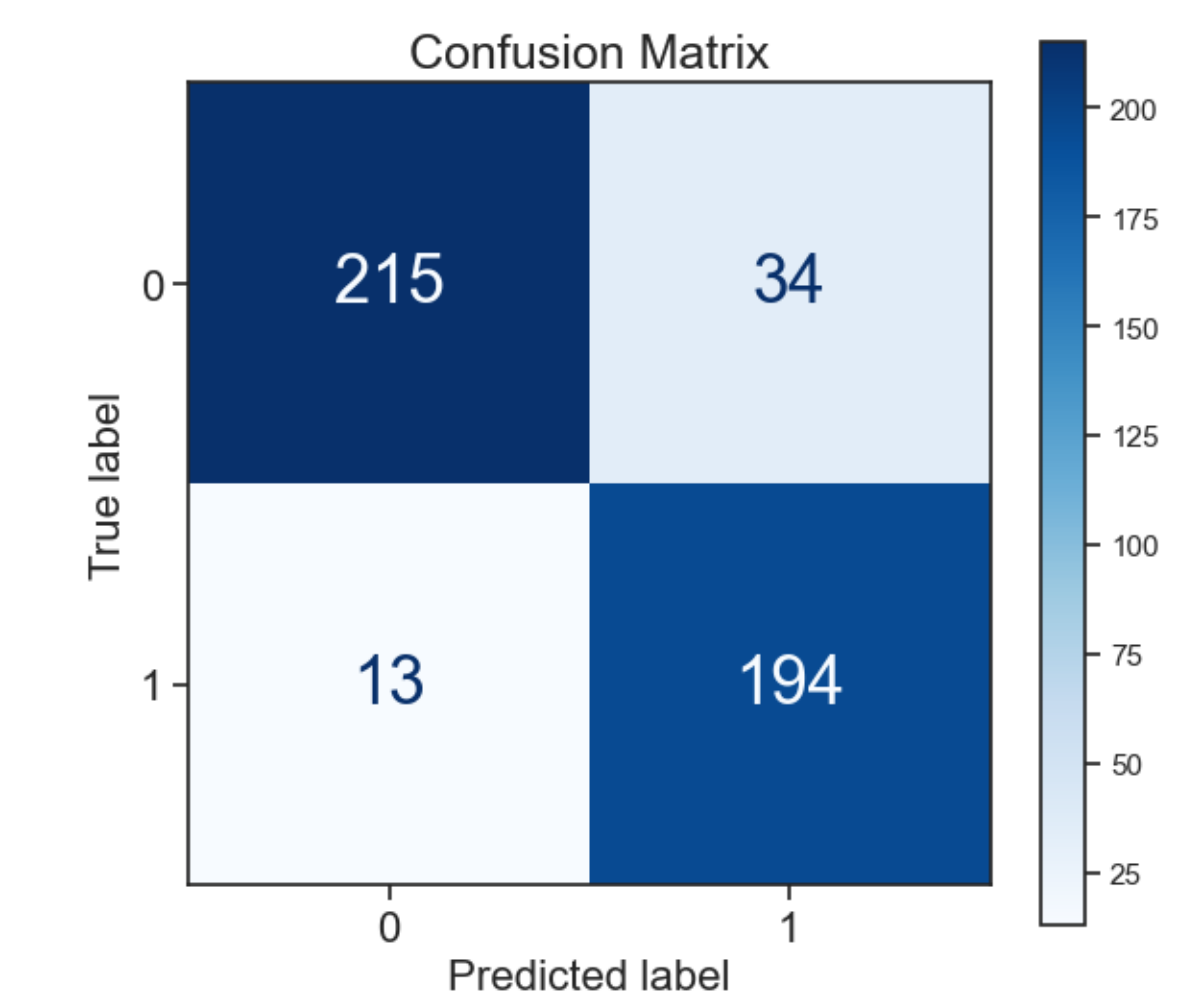
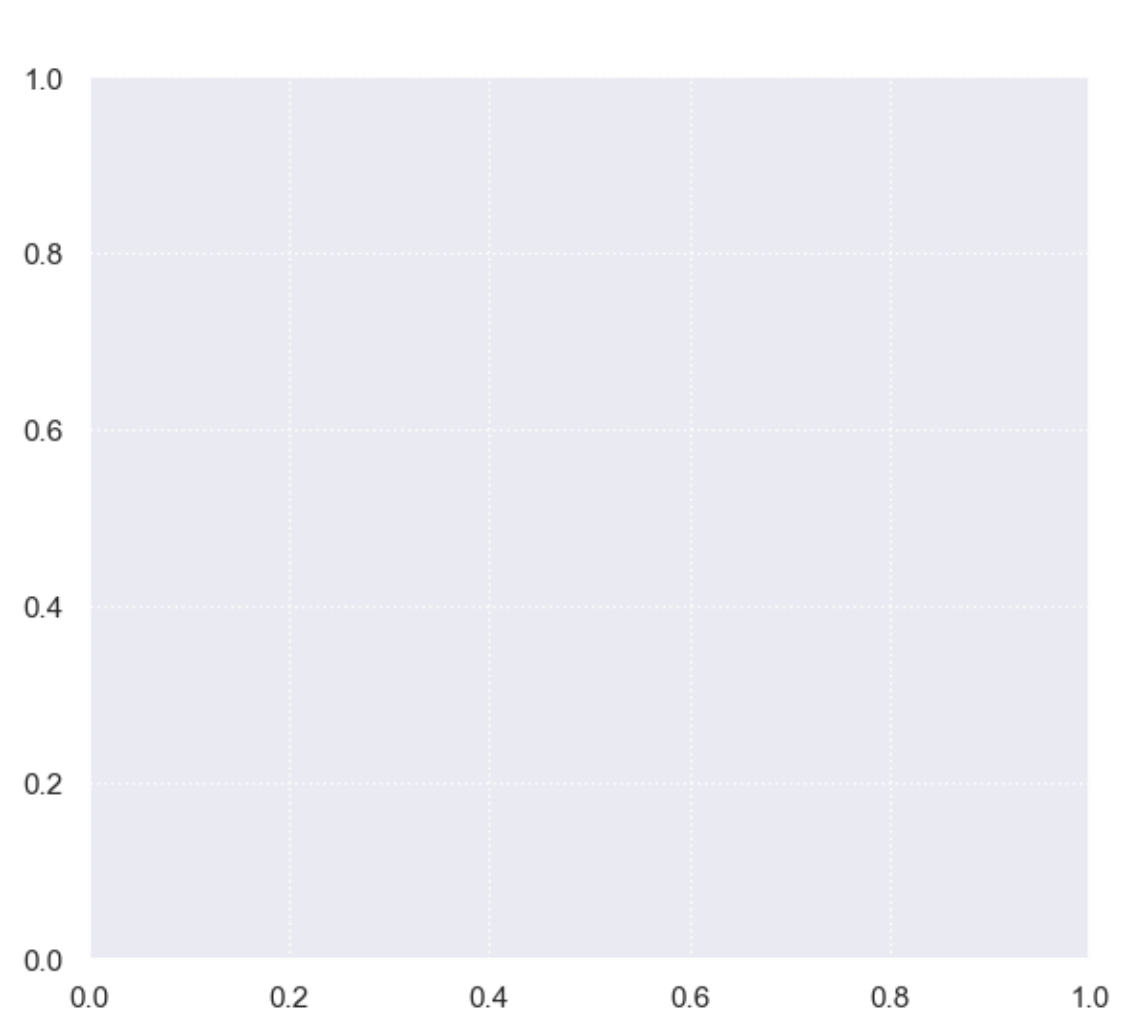
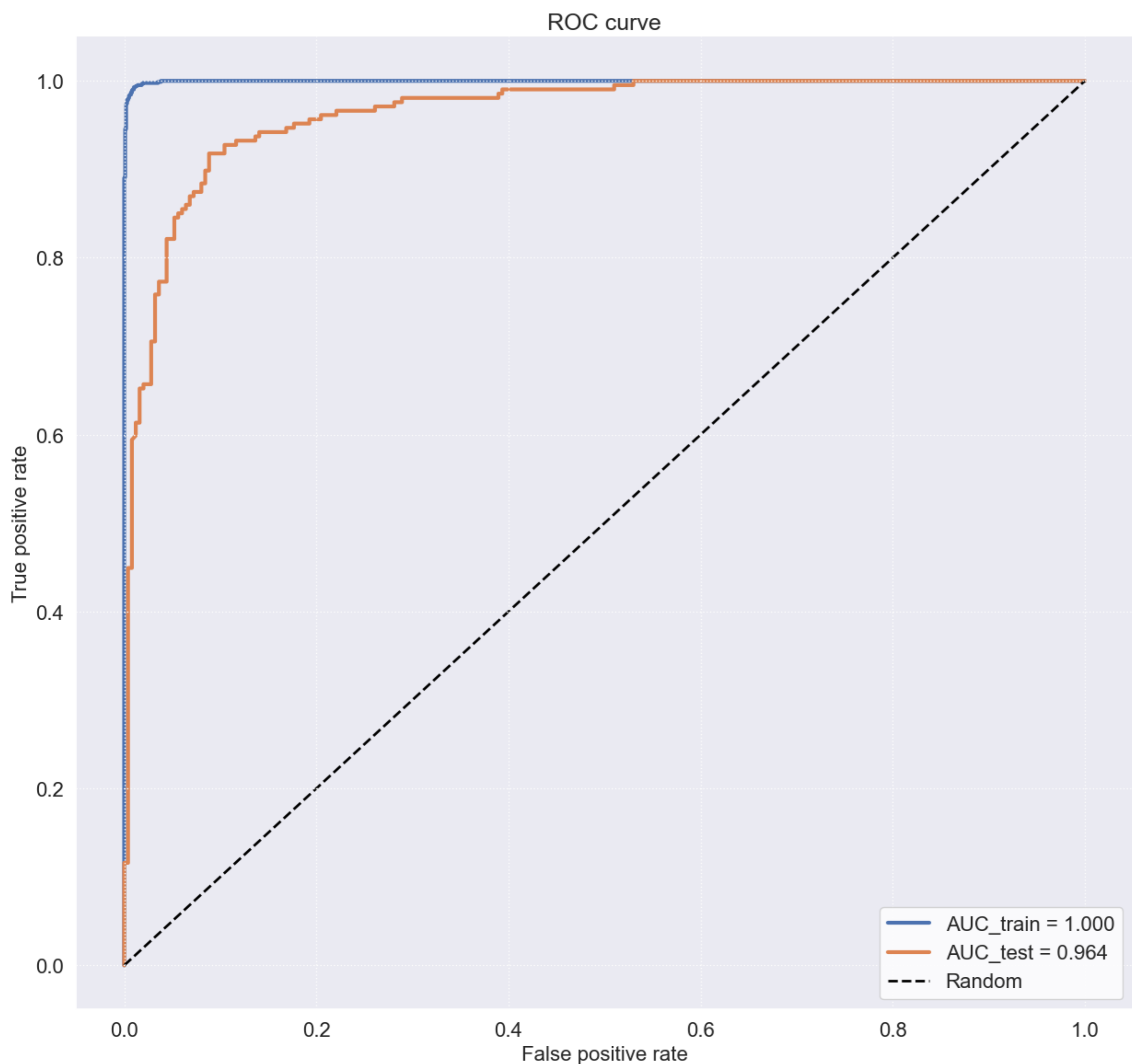
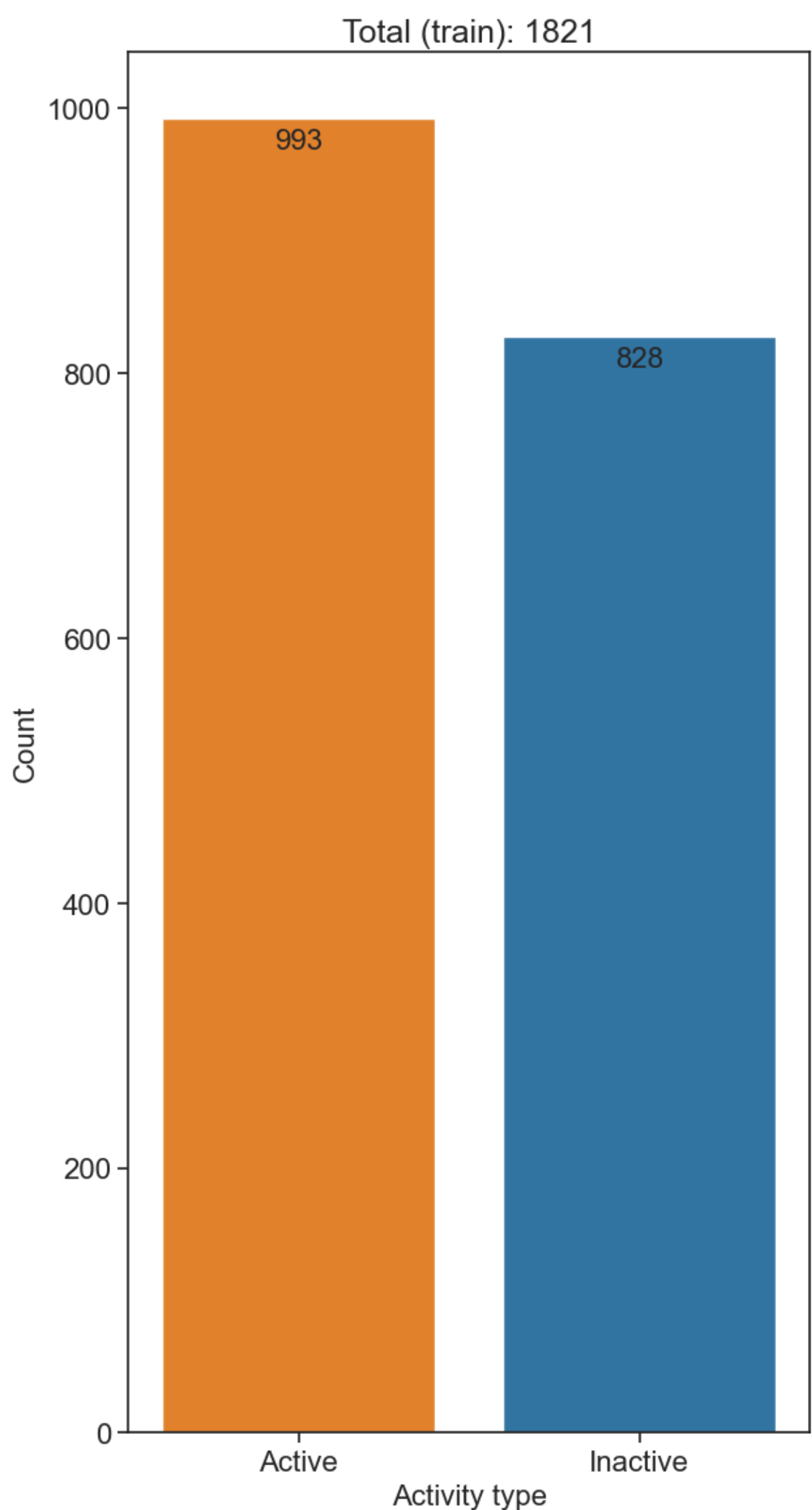


| XGBoost Parameters | | Value |
|--------------------|--|--------|
| alpha | | 1.6475 |
| colsample_bytree | | 0.5497 |
| gamma | | 0.3794 |
| lambda | | 1.2747 |
| learning_rate | | 0.1833 |
| max_depth | | 5.0 |
| min_child_weight | | 3.0 |
| n_estimators | | 476.0 |
| reg_alpha | | 0.0735 |
| reg_lambda | | 0.7563 |
| scale_pos_weight | | 1.4966 |
| subsample | | 0.9304 |



| Metric | Train | Test |
|-------------------|--------|--------|
| AUC | 0.9993 | 0.9615 |
| accuracy | 0.9846 | 0.8991 |
| balanced accuracy | 0.9855 | 0.9015 |
| recall_(sens) | 0.9952 | 0.9275 |
| specificity | 0.9758 | 0.8755 |
| precision | 0.9717 | 0.861 |
| f1_score | 0.9846 | 0.8993 |

Protein: P28845 - metric: SoftVotingXGBoostEnsemble



| Metric | Train | Test |
|-------------------|--------|--------|
| AUC | 0.9996 | 0.9636 |
| accuracy | 0.9786 | 0.8969 |
| balanced accuracy | 0.9803 | 0.9003 |
| recall_(sens) | 0.9988 | 0.9372 |
| specificity | 0.9617 | 0.8635 |
| precision | 0.9561 | 0.8509 |
| f1_score | 0.9786 | 0.8971 |