

Table S1. Models' performances evaluated on an additional human dataset, with MAE and BAE genes identified in monoclonal cell lines derived from GM12878 (Nag et al., 2013, Dataset S2).

| Model | Recall (Sensitivity) | Specificity | Precision (PPV) | NPV | F1 | Accuracy | Balanced Accuracy |
|-------------------|-----------------------------|--------------------|------------------------|------------|-----------|-----------------|--------------------------|
| ada | 0.419 | 0.967 | 0.741 | 0.881 | 0.535 | 0.867 | 0.693 |
| glmStepAIC | 0.379 | 0.982 | 0.828 | 0.876 | 0.52 | 0.872 | 0.681 |
| svmPoly | 0.435 | 0.968 | 0.753 | 0.884 | 0.551 | 0.87 | 0.701 |
| nnet | 0.415 | 0.972 | 0.766 | 0.881 | 0.538 | 0.87 | 0.693 |
| mlpML | 0.443 | 0.959 | 0.709 | 0.885 | 0.545 | 0.864 | 0.701 |
| rf | 0.395 | 0.96 | 0.69 | 0.876 | 0.503 | 0.857 | 0.678 |
| rpart | 0.423 | 0.955 | 0.677 | 0.881 | 0.521 | 0.857 | 0.689 |
| knn | 0.379 | 0.97 | 0.738 | 0.874 | 0.501 | 0.862 | 0.675 |
| evtree | 0.423 | 0.955 | 0.677 | 0.881 | 0.521 | 0.857 | 0.689 |