Top Predictive Features by Data Modality
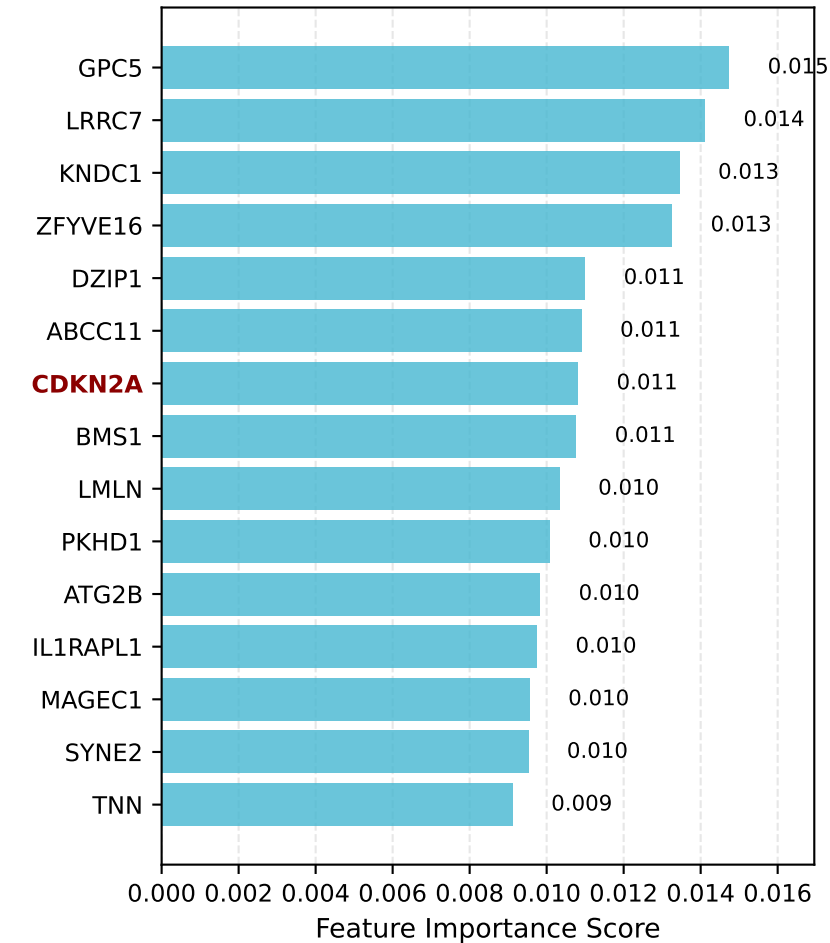
Gene Expression (Best Model: XGBOOST)

Feature	Importance Score
DCAF4	0.028
OR3A2	0.023
GLYCTK	0.021
AARS	0.015
SLPI	0.015
ICA1	0.013
SS18L2	0.012
ABCA4	0.011
FECH	0.010
LUC7L	0.010
C20orf24	0.010
GEMIN8	0.010
LOC100134229	0.009
HYAL2	0.009
AGXT2L2	0.009
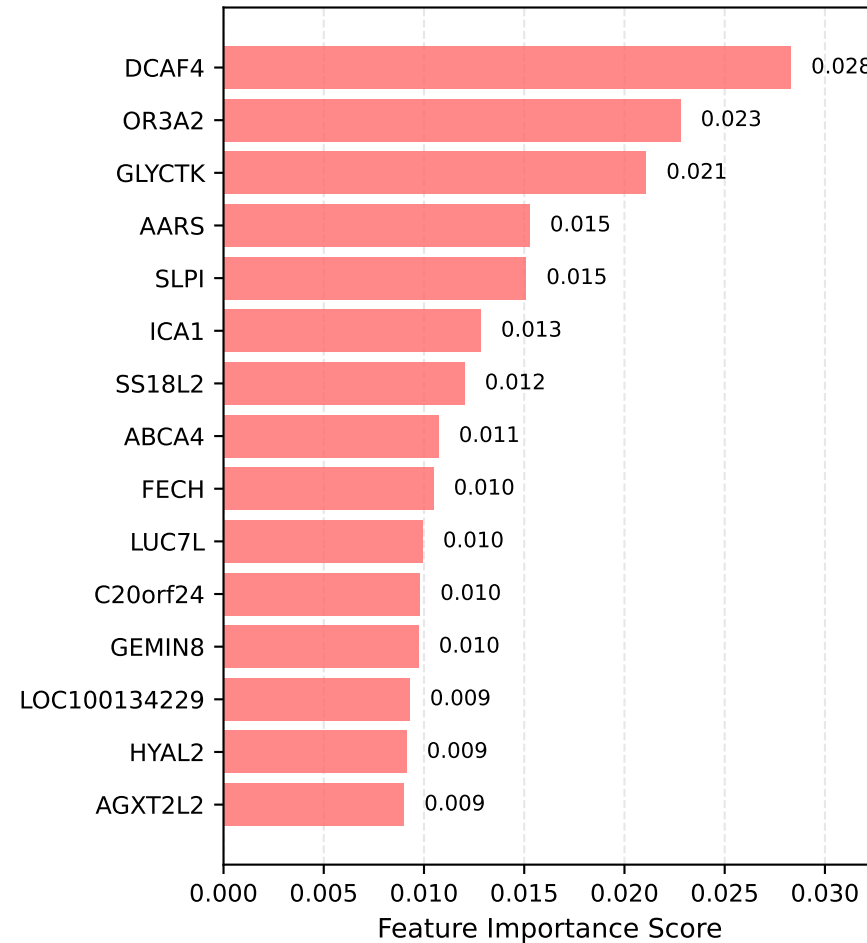
Protein Expression (Best Model: XGBOOST)

Feature	Importance Score
p38_pT180_Y182-R-V	0.029
PRAS40_pT246-R-V	0.025
MAPK_pT202_Y204-R-V	0.025
p70S6K-R-V	0.024
Tuberin-R-E	0.022
DUSP4-R-V	0.021
GSK3-alpha-beta-M-V	0.020
FASN-R-V	0.018
Cyclin_E2-R-C	0.018
14-3-3_beta-R-V	0.017
4E-BP1_pT37_T46-R-V	0.017
Rab11-R-E	0.016
NDRG1_pT346-R-V	0.016
Smad1-R-V	0.016
Rictor_pT1135-R-V	0.016
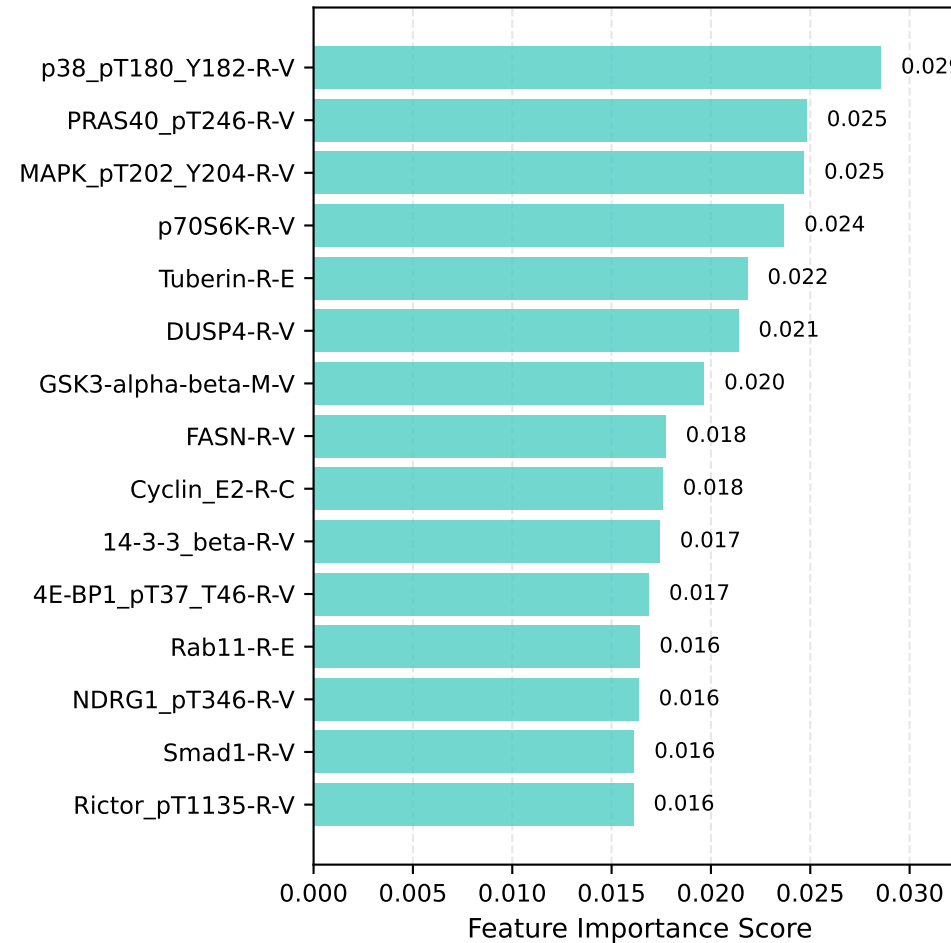
Mutation Status (Best Model: XGBOOST)

Feature	Importance Score
GPC5	0.015
LRRC7	0.014
KNDC1	0.013
ZFYVE16	0.013
DZIP1	0.011
ABCC11	0.011
CDKN2A	0.011
BMS1	0.011
LMLN	0.010
PKHD1	0.010
ATG2B	0.010
IL1RAPL1	0.010
MAGEC1	0.010
SYNE2	0.010
TNN	0.009

Feature importance derived from best-performing model for each modality. Mean AUC: Expression=0.676, Protein=0.701, Mutation=0.620