

Supplementary

Table S1 SHAP important genes

Gene	Important
<i>EZH2</i>	0.07338388
<i>MKI67</i>	0.06439289
<i>RAD51</i>	0.05020683
<i>PTPN11</i>	0.03347519
<i>DNMT1</i>	0.03171178
<i>SPP1</i>	0.03015977
<i>FGF13</i>	0.01952
<i>PIK3R1</i>	0.01839569
<i>CXCL12</i>	0.01802033
<i>KIT</i>	0.01616448
<i>CDH1</i>	0.01562261

Table S2 Training set ROC IndividualGenes AUC

Gene	AUC
<i>EZH2</i>	0.87638938
<i>MKI67</i>	0.86857719
<i>RAD51</i>	0.8433804
<i>PTPN11</i>	0.78626241
<i>DNMT1</i>	0.76616827
<i>SPP1</i>	0.750979
<i>FGF13</i>	0.70479807
<i>PIK3R1</i>	0.73921127
<i>CXCL12</i>	0.7354535
<i>KIT</i>	0.61516554
<i>CDH1</i>	0.74318658

Table S3 Verification Set 1 gene analysis results

Gene	P_Value	AUC	AUC_Lower_CI	AUC_Upper_CI	SE	Mean_Con	Mean_Treat
<i>EZH2</i>	0.52374433	0.6258488	0.50745247	0.74287574	0.29926568	11.9185915	11.7267337
<i>MKI67</i>	0.43035192	0.55002263	0.42960616	0.66637619	0.13154829	6.55069229	6.65527114
<i>RAD51</i>	0.58982939	0.59031236	0.4757809	0.69851743	0.28560917	6.01561064	5.86109953

Table S4 Verification Set 2 gene analysis results

Gene	P_Value	AUC	AUC_Lower_CI	AUC_Upper_CI	SE	Mean_Con	Mean_Treat
<i>EZH2</i>	0.89798763	0.625	0.25	0.90625	1.09363235	-0.1456906	-0.2916965
<i>MKI67</i>	0.66776846	0.5625	0.24921875	0.875	0.76684726	0.11076621	-0.2361272
<i>RAD51</i>	0.90834246	0.4375	0.0625	0.875	0.67347229	0.08804245	0.16967261