

Supplementary Table 20 – Variable Importance for predicting BCLM pERK+ using primary tumor clusters. Larger values imply higher variable importance. Clusters used in the optimal model are marked with “X.”

Cluster in Primary	Included In Optimal Model	Variable Importance
CD8a+PD1+	X	64.582
CD68+CD163+CD206+	X	19.871
CD31+	X	17.611
pERK+	X	12.553
CD206+		11.857
CD163+		6.104
HIF1 α +		5.579
CD68+		3.060
Ki-67+		0.917
CD14+		0.000
CD68+MMP9+		0.000
CD163+MMP9+		0.000
MMP9+		0.000
CD56+		0.000
CD4+PD1+		0.000
CD8a+PD1-		0.000
PD-L1+		0.000
E-cad+		0.000
Collagen+		0.000
α SMA+		0.000