

Supplementary Table 12 – Variable Importance for predicting BCLM CD8a+PD1- 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	0.821
E-cad+	X	0.786
CD68+	X	0.750
CD4+PD1+	X	0.714
CD206+		0.696
CD163+MMP9+		0.679
pERK+		0.679
MMP9+		0.643
CD31+		0.643
CD8a+PD1-		0.607
CD68+MMP9+		0.589
CD56+		0.571
Ki-67+		0.571
HIF1 α +		0.571
CD68+CD163+CD206+		0.554
CD14+		0.536
CD163+		0.518
PD-L1+		0.518
Collagen+		0.500
α SMA+		0.500