

Supplementary Table 3 – Variable Importance for predicting BCLM CD163+ 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
E-cad+	X	20.253
CD163+	X	12.066
CD68+	X	11.295
CD163+MMP9+	X	9.002
MMP9+	X	7.475
pERK+	X	5.927
CD56+	X	5.530
CD4+PD1+	X	5.306
CD14+		3.569
Ki-67+		3.303
$\alpha$ SMA+		3.185
CD8a+PD1+		3.031
PD-L1+		2.882
CD8a+PD1-		2.301
HIF1 $\alpha$ +		1.373
CD31+		1.222
CD68+CD163+CD206+		0.907
CD206+		0.804
CD68+MMP9+		0.539
Collagen+		0.029