

### **Figure S1**

Combine the four data sets and remove Batch Effect GEO database.

### **Figure S2**

Expression of most immune checkpoints comparing the two subtypes both in TCGA and GEO database.

### **Figure S3**

Distribution of uniformly upregulated TF in GEO subtypes.

Ns;  $p > 0.05$ ; \*\*\*\*  $p < 0.0001$ .

### **Table S1 Clinical data screening**

### **Table S2 TCGA.cormat.EMT.lncrna**

### **Table S3 GEO.cormat.EMT.lncrna**

### **Table S4 TCGA\_LUSC\_subtype**

### **Table S5 GEO\_LUSC\_subtype**

### **Table S6 TCGA.mut.dat**

### **Table S7 TCGA.TF\_activities.anova.res**

### **Table S8 GEO.TF\_activities.anova.res**

### **Table S9 ALL.TF.degs.sig.tet**

### **Table S10 ALL.TF.targets.enrich.kegg**