DEGs mm in GBM and LGG,combat 3 histology type GBM astrocytoma LGG glioblastoma no histology IDH1_R132H oligoastrocytoma type oligodendroglioma 0 IDH1_R132H clusters TP53 no_ann LGr1 **ATRX TP53** LGr2 PDGFRA LGr3 0 LGr4 IDH_codel_subtype no_class no_ann chr7_gain_chr_10loss Mar2022.Comp8_C1A_vs_C1B_DN **ATRX** histology 2.5 0 clusters 2 1.5 Mar2022.Comp8_C1A_vs_C1B_DN no ann C1AB **PDGFRA** 0.5 0 C1AB 1 \sim no_ann C1A C₁B IDH_codel_subtype Intermediate IDHmut-codel IDHmut-non-codel \mathfrak{S} **IDHwt** no_ann chr7_gain_chr_10loss Gain_chr_7_&_loss_chr_10 no_ann No combined CNA matrix_18 0

DEGs mm in GBM and LGG,combat 3 histology type GBM astrocytoma LGG glioblastoma no histology IDH1_R132H oligoastrocytoma type oligodendroglioma 0 IDH1_R132H clusters TP53 no_ann LGr1 **ATRX TP53** LGr2 PDGFRA LGr3 0 LGr4 IDH_codel_subtype no_class no_ann chr7_gain_chr_10loss Mar2022.Comp8_C1A_vs_C1B_DN **ATRX** histology 2.5 0 clusters 2 1.5 Mar2022.Comp8_C1A_vs_C1B_DN no ann C1AB **PDGFRA** 0.5 0 C1AB 1 \sim no_ann C1A C₁B IDH_codel_subtype Intermediate IDHmut-codel IDHmut-non-codel \mathfrak{S} **IDHwt** no_ann chr7_gain_chr_10loss Gain_chr_7_&_loss_chr_10 no_ann No combined CNA matrix_18 0