Appendix B The data of nonlinear alignment by using TopHat-Fusion. Sample Ed15 Ed5 12000000 (18G) 12000000 (18G) Raw reads Valid reads 96695258(80.58%) 92722884 (77.29%) Mapped reads 59939114 (61.99%) 64904183 (70.00%) Unique Mapped reads 59178778(61.20%) 63715335(68.72%) Multi Mapped reads 760336(0.79%) 1188848(1.28%) PE Mapped reads 25057032(25.91%) 29135713 (31. 42%) Mapped left reads 34014798 (36. 68%) 32435874 (33. 54%) Mapped right reads 27503240(28.44%) 30889385 (33. 31%) Reads map to sense strand 29598281 (30. 61%) 31936173 (34. 44%) Reads map to antisense strand 29580497 (30. 59%) 31779162 (34. 27%) Non-splice reads 55882477 (57.79%) 43823042 (47.26%) 19892293 (21.45%) Splice reads 3296301 (3. 41%) Unmapped reads 36756144(38.01%) 27818701 (30.00%) 771052(0.80%) Back-spliced junctions reads 1814270 (1.96%)