

**Fig 8 related cells quantifications:**

Quantitative single cell analysis of  $\beta$ -catenin<sup>+/+</sup> or materno-zygotic mutant for  $\beta$ -catenin treated with FGF or control (KSOM) stained for DAPI (Ch1), active  $\beta$ -catenin (Ch2), NANOG (Ch3), GATA4 (Ch4) and. The number after each file name depicts the embryo image number. Manually curated for ICM and TE cells, manually genotyped based on active  $\beta$ -catenin staining.