SignTest_ImprintedGene

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Testing for significant difference between maternal and paternal expression for genes across all individuals.

Read in not normalized maternal and paternal expression matrixes. Remove genes that are not expressed in maternal or paternal, and remove those genes expressed in less than 100 reads summed over all maternal and paternal for that gene.

Warning in qvalue(as.numeric(as.character(Zall3\$signpval))): NAs introduced
by coercion

```
##
                            less0 greater0 signpvalue
         genes
                                            "1.58711064069431e-41"
    [1.] "ENSG00000204186" "2"
                                  "148"
                                  "136"
##
    [2,] "ENSG00000242265" "2"
                                            "5.50553799467154e-38"
##
    [3,] "ENSG00000224078" "2"
                                  "131"
                                            "1.63687588352002e-36"
##
   [4,] "ENSG00000100138" "23"
                                  "189"
                                            "1.24132502395267e-33"
                                  "107"
   [5,] "ENSG00000185513" "1"
                                            "6.71764364602269e-31"
                                  "184"
    [6,] "ENSG00000130844" "36"
                                            "4.05268157677564e-25"
##
                                  "76"
##
    [7,] "ENSG00000139679" "0"
                                            "2.64697796016969e-23"
                                  "75"
##
    [8,] "ENSG00000145945" "0"
                                            "5.29395592033941e-23"
   [9,] "ENSG00000053918" "79"
                                  "1"
                                            "1.3400325923359e-22"
                                  "81"
                                            "9.82875021147483e-14"
  [10,] "ENSG00000168994" "12"
   [11,] "ENSG00000257151" "0"
                                  "43"
                                            "2.27373675443232e-13"
                                  "29"
## [12,] "ENSG00000177432" "0"
                                            "3.72529029846191e-09"
## [13,] "ENSG00000196756" "113"
                                  "45"
                                            "6.20406731749264e-08"
## [14,] "ENSG00000198346" "63"
                                  "132"
                                            "0.00000869597040247412"
  [15,] "ENSG00000140443" "14"
                                  "49"
                                            "0.000011123023000449"
  [16,] "ENSG00000100592" "66"
                                  "126"
                                            "0.0000178070355770431"
  [17,] "ENSG00000271122"
                                  "106"
                                            "0.0000208698418624478"
  [18.] "ENSG00000253954" "32"
                                  "6"
                                            "0.0000243425602093339"
## [19,] "ENSG00000128654" "0"
                                  "16"
                                            "0.000030517578125"
## [20,] "ENSG00000160352" "35"
                                  "79"
                                            "0.0000460924737125119"
## [21,] "ENSG00000179632" "17"
                                  "51"
                                            "0.000044534487714936"
   [22,] "ENSG00000146143" "30"
                                  "71"
                                            "0.0000553307058758015"
  [23,] "ENSG00000172349" "61"
                                  "115"
                                            "0.0000571463568305444"
  [24,] "ENSG00000214078" "111"
                                  "58"
                                            "0.0000556233723726144"
   [25,] "ENSG00000159720" "32"
                                  "7"
                                            "0.000070254784077406"
   [26,] "ENSG00000180185" "68"
                                  "29"
                                            "0.0000934068710022919"
   [27,] "ENSG00000064666" "127"
                                  "72"
                                            "0.000117901945332261"
  [28,] "ENSG00000183199" "7"
                                  "31"
                                            "0.000116167007945478"
##
##
         ٧2
                          signFDR
##
    [1,] "ZDBF2"
                          "1.69582771958187e-37"
##
    [2,] "PEG10"
                          "2.94133367365327e-34"
    [3,] "SNHG14"
                          "5.8300062718038e-33"
##
                          "3.31588947023357e-30"
##
    [4,] "NHP2L1"
##
   [5,] "L3MBTL1"
                          "1.43556044715505e-27"
##
   [6.] "ZNF331"
                          "7.21715044130795e-22"
   [7,] "LPAR6"
                          "4.04042278634473e-20"
##
    [8,] "FAM50B"
                          "7.07073987610333e-20"
```

```
## [9,] "KCNQ1"
                         "1.59091647212323e-19"
## [10,] "PXDC1"
                         "1.05020196009609e-10"
## [11,] "PWAR6"
                         "2.20862520191903e-10"
## [12,] "NAP1L5"
                         "0.0000331706056992213"
## [13,] "SNHG17"
                         "0.0000509926609903145"
## [14,] "ZNF813"
                         "0.000663688883931686"
## [15,] "IGF1R"
                         "0.00792330005065317"
## [16,] "DAAM1"
                         "0.0118917609462941"
## [17,] "RP11-379H18.1" "0.0131173094294267"
## [18,] "HMGN1P38"
                         "0.0144500142131518"
## [19,] "MTX2"
                         "0.0171621222245066"
## [20,] "ZNF714"
                         "0.0234522896008662"
## [21,] "MAF1"
                         "0.0234522896008662"
                         "0.0254420342805986"
## [22,] "PRIM2"
## [23,] "IL16"
                         "0.0254420342805986"
## [24,] "CPNE1"
                         "0.0254420342805986"
## [25,] "ATP6VOD1"
                         "0.0300268947146833"
                         "0.0383866314099803"
## [26,] "FAHD1"
                         "0.0449922244955432"
## [27,] "CNN2"
## [28,] "HSP90AB3P"
                         "0.0449922244955432"
```