

Analysis tools - Pathways [GO enrichment for miRNA targets]

ontology
p.value.threshold
minimum.population
conditional.testing
p.adjust.method
over.or.under.representation
species
database



Hide parameters

Run 

Conditional testing means that when a significant GO term is found, i.e. p-value is smaller than the specified threshold, that GO term is removed when testing the significance of its parent.

More help

Show tool sourcecode

```

# ANALYSIS Pathways/"GO enrichment for miRNA targets" (Performs a statistical
# INPUT GENE_EXPRS normalized.tsv
# OUTPUT hyperg_go.tsv, hyperg_go.html
# PARAMETER ontology [all, biological_process, molecular_function, cellular_co
# PARAMETER p.value.threshold DECIMAL DEFAULT 0.05 (P-value threshold.)
# PARAMETER minimum.population INTEGER FROM 1 TO 1000000 DEFAULT 5 (Minimum nu
# PARAMETER conditional.testing [yes, no] DEFAULT yes (Conditional testing mea
# PARAMETER p.adjust.method [none, BH, BY] DEFAULT none (Method for adjusting
# PARAMETER over.or.under.representation [over, under] DEFAULT over (Should ov
# PARAMETER species [human, mouse, rat] DEFAULT human (The species for which t
# PARAMETER database [PicTar, TargetScan, both] DEFAULT both (For human data t

# load packages
library(GOstats)
library(R2HTML)
library(RmiR.Hs.miRNA)

# read input
dat <- read.table('normalized.tsv', header=TRUE, sep='\t', row.names=1)

# extracts identifiers
mirna_ids <- as.character(rownames(dat))

# check for conditional testing and multiple testing correction
if (conditional.testing == 'no') {
  conditional <- FALSE
} else {
  if (p.adjust.method != 'none')
    stop('CHIPSTER-NOTE: Multiple testing correction can be applied only when
  conditional <- TRUE
}

if (species == 'mouse') {
  library(org.Mm.eg.db)
  targets <- read.table(file.path(chipster.tools.path, "miRNA_mappings", "mirr
  ensembl.to.entrez <- as.list(org.Mm.egENSEMBLTRANS2EG)
  reference.genes <- unique(unlist(ensembl.to.entrez[unique(targets$tran)]))
  selected.genes <- unique(unlist(ensembl.to.entrez[unique(targets$mirna

```