```
miRBase precursor
                             : bta-mir-19b
                             : 228
    Total read count
    hsa-miR-19b-1-5p read count0
                                                         hsa-miR-19b-3p read count: 4
    mmu-miR-19b-3p read count4
    mmu-miR-19b-1-5p read cou0t
    rno-miR-19b-1-5p read count0
    rno-miR-19b-3p read count: 4
    gga-miR-19b-5p read count: 0
    gga-miR-19b-3p read count: 4
    xla-miR-19b read count
    dre-miR-19b-3p read count: 4
    ggo-miR-19b read count : 4
    lca-miR-19b read count
    age-miR-19b read count
    ppa-miR-19b read count
                             : 4
    ppy-miR-19b read count
    ptr-miR-19b read count
    mml-miR-19b read count : 4
  freq. sla-miR-19b read count
                             : 4
    1a-miR-19b read count
                             . 4
     mne-miR-19b read count : 4
     fru-miR-19b read count
                             : 4
0.75 ni-miR-19b read count
    xtr-miR-19b read count
                             : 4
 o.5 mdo-miR-19b-1-5p read count
     mdo-miR-19b-3p read count 4
     bta-miR-19b read count
0.25 can-miR-19b-1-5p read count0
     ban-miR-19b-3p read count: 4
    cfa-miR-19b read count
    eca-miR-19b read count
                                                                                        length
    ssc-miR-19b read count
    tgu-miR-19b-1-5p read count0
                                                           ami-miR-19b-3p
    tgu-miR-19b-3p read count: 4
                                                           ggo-miR-19b
    pma-miR-19b-3p read count: 4
                                                           oga-miR-19b
    aca-miR-19b read count : 4
                                                           cfa-miR-19b
    ola-miR-19b read month r-1914-1-5p
    sha-miR-19b read count : 4
                                                           hsa-miR-19b-3p
    cgr-miR-19b-5p read count: 0
                                                           gga-miR-19b-3p
    cgr-miR-19b-3p read count: 4
                                                           lla-miR-19b
    oan-miR-19b-2-5p read count0
                                                           dma-miR-19b
    oar-miR-19b read count
                                                           oar-miR-19b
    ssa-miR-19c-3p read count: 4
                                                           abu-miR-19b
    cpi-miR-19b-5p read count: 0
                                                           eca-miR-19b
    cpi-miR-19b-3p read count: 4
                                                           pma-miR-19b-3p
    ami-miR-19b-5p read-count 90-5p
    ami-miR-19b-3p read count: 4
                                                           mmr-miR-19b
    cli-miR-19b-5p read count : 0
                                                           ocu-miR-19b-3p
    cli-miR-19b-3p readccount 1914-5p
    pbv-miR-19b-3p rearl-count 9 42-5p
    chi-miR-19b-5p read count: 0
                                                           pny-miR-19b
    chi-miR-19b-3p read count: 4
                                                           gmo-miR-19c-5p
    tch-miR-19b-3p read count: 4
                                                           nle-miR-19b
    oha-miR-19b-5p read-count 90-2-5p
    oha-miR-19b-3p read count: 4
                                                           gmo-miR-19b-3p
    cja-miR-19b read count : 4
                                                           bta-miR-19b
    pal-miR-19-3p read count : 4
                                                           ppa-miR-19b
    pal-miR-19-2-5p read count: 0
                                                           tgu-miR-19b-3p
    abu-miR-19b read count : 4
                                                           mmu-miR-19b-3p
    mze-miR-19b read count
                                                           pha-miR-19b
    nbr-miR-19b read count
                                                           oan-miR-19b-3p
    oni-miR-19b read count
                                                           ppy-miR-19b
    pny-miR-19b readgeuntr-1914-5p
    gmo-miR-19c-5p read count 4
                                                           cgr-miR-19b-3p
    gmo-miR-19b-3p madrixumbi4-5p
    xla-miR-19b-5p read count: 0
                                                           chi-miR-19b-3p
    cpo-miR-19b-5p read count: 0
                                                           mml-miR-19b
    cpo-miR-19b-3p read-count 914-5p
    dno-miR-19b-5p read count: 0
                                                           cpo-miR-19b-3p
    dno-miR-19b-3p read count: 4
                                                           xtr-miR-19b
    ocu-miR-19b-5p read-agant 96-1-5p
    ocu-miR-19b-3p read count: 4
                                                           ssc-miR-19b
    mmr-miR-19b readidount-1914-5p
    dma-miR-19b read pounts-1914-5p
    nle-miR-19b read count : 4
                                                           mze-miR-19b
    pha-miR-19b read count : 4
                                                           sha-miR-19b
```

oha-miR-19b-3p

oga-miR-19b readtoumtr-1914-1-5p

remaining reads

cacuguucuaugguuaguuuugcagguuugcauccagcugugugauauucugcugagmakaiilbbaugcaaaacugacugugguagug

```
cfa-miR-19b
mdo-miR-19b-1-5p
                                     hsa-miR-19b-3p
                                      gga-miR-19b-3p
                                      lla-miR-19b
                                      dma-miR-19b
                                     oar-miR-19b
                                      abu-miR-19b
                                      eca-miR-19b
                                     pma-miR-19b-3p
cgr-miR-19b-5p
                                     mmr-miR-19b
                                     ocu-miR-19b-3p
cpo-miR-19b-5p
pal-miR-19-2-5p
                                     pny-miR-19b
                                      gmo-miR-19c-5p
                                     nle-miR-19b
oan-miR-19b-2-5p
                                      qmo-miR-19b-3p
                                     bta-miR-19b
                                      ppa-miR-19b
                                     tgu-miR-19b-3p
                                      mmu-miR-19b-3p
                                     pha-miR-19b
                                      oan-miR-19b-3p
                                     ppy-miR-19b
gga-miR-19b-5p
                                     cgr-miR-19b-3p
oha-miR-19b-5p
                                     chi-miR-19b-3p
                                     mml-miR-19b
dno-miR-19b-5p
                                     cpo-miR-19b-3p
                                     xtr-miR-19b
rno-miR-19b-1-5p
                                     ssc-miR-19b
cli-miR-19b-5p
cpi-miR-19b-5p
                                      mze-miR-19b
                                      sha-miR-19b
tgu-miR-19b-1-5p
                                     oha-miR-19b-3p
                                     rno-miR-19b-3p
                                     cpi-miR-19b-3p
                                     cli-miR-19b-3p
ocu-miR-19b-5p
                                     fru-miR-19b
                                     xla-miR-19b
                                     dre-miR-19b-3p
oan-miR-19b-1-5p
                                      aca-miR-19b
                                     pbv-miR-19b-3p
chi-miR-19b-5p
                                     mne-miR-19b
                                     nbr-miR-19b
                                     lca-miR-19b
xla-miR-19b-5p
                                     mdo-miR-19b-3p
ami-miR-19b-5p
                                     cja-miR-19b
                                     ola-miR-19b
mmu-miR-19b-1-5p
                                      tch-miR-19b-3p
                                      ssa-miR-19c-3p
                                      age-miR-19b
                                      sla-miR-19b
                                     oni-miR-19b
hsa-miR-19b-1-5p
                                     pal-miR-19-3p
                                     dno-miR-19b-3p
                                     ptr-miR-19b
                                     tni-miR-19b
```

.....ugugcaaauccaugcaaaacug...... 1 0 F02

cacuguucuaugguuaguuuugcagguuugcauccagcugugugauauucugcugagmaRahBbaugcaaaacugacugugguagug

```
cfa-miR-19b
mdo-miR-19b-1-5p
                                     hsa-miR-19b-3p
                                      gga-miR-19b-3p
                                      lla-miR-19b
                                      dma-miR-19b
                                     oar-miR-19b
                                      abu-miR-19b
                                      eca-miR-19b
                                     pma-miR-19b-3p
cgr-miR-19b-5p
                                     mmr-miR-19b
                                     ocu-miR-19b-3p
cpo-miR-19b-5p
pal-miR-19-2-5p
                                     pny-miR-19b
                                      gmo-miR-19c-5p
                                     nle-miR-19b
oan-miR-19b-2-5p
                                      qmo-miR-19b-3p
                                     bta-miR-19b
                                      ppa-miR-19b
                                     tgu-miR-19b-3p
                                      mmu-miR-19b-3p
                                     pha-miR-19b
                                      oan-miR-19b-3p
                                     ppy-miR-19b
gga-miR-19b-5p
                                     cgr-miR-19b-3p
oha-miR-19b-5p
                                     chi-miR-19b-3p
                                     mml-miR-19b
dno-miR-19b-5p
                                     cpo-miR-19b-3p
                                     xtr-miR-19b
rno-miR-19b-1-5p
                                     ssc-miR-19b
cli-miR-19b-5p
cpi-miR-19b-5p
                                      mze-miR-19b
                                      sha-miR-19b
tgu-miR-19b-1-5p
                                     oha-miR-19b-3p
                                     rno-miR-19b-3p
                                     cpi-miR-19b-3p
                                     cli-miR-19b-3p
ocu-miR-19b-5p
                                     fru-miR-19b
                                     xla-miR-19b
                                     dre-miR-19b-3p
oan-miR-19b-1-5p
                                      aca-miR-19b
                                     pbv-miR-19b-3p
chi-miR-19b-5p
                                     mne-miR-19b
                                     nbr-miR-19b
                                     lca-miR-19b
xla-miR-19b-5p
                                     mdo-miR-19b-3p
ami-miR-19b-5p
                                     cja-miR-19b
                                     ola-miR-19b
mmu-miR-19b-1-5p
                                      tch-miR-19b-3p
                                      ssa-miR-19c-3p
                                      age-miR-19b
                                      sla-miR-19b
                                     oni-miR-19b
hsa-miR-19b-1-5p
                                     pal-miR-19-3p
                                     dno-miR-19b-3p
                                     ptr-miR-19b
                                     tni-miR-19b
```

ami-miR-19b-3p ggo-miR-19b

cacuguucuaugguuaguuuugcagguuugcauccagcugugugauauucugcogagmaRailBbaugcaaaacugacugugguagug

```
cfa-miR-19b
mdo-miR-19b-1-5p
                                     hsa-miR-19b-3p
                                     gga-miR-19b-3p
                                     lla-miR-19b
                                      dma-miR-19b
                                     oar-miR-19b
                                     abu-miR-19b
                                     eca-miR-19b
                                     pma-miR-19b-3p
cgr-miR-19b-5p
                                     mmr-miR-19b
                                     ocu-miR-19b-3p
cpo-miR-19b-5p
pal-miR-19-2-5p
                                     pny-miR-19b
                                      gmo-miR-19c-5p
                                     nle-miR-19b
oan-miR-19b-2-5p
                                     qmo-miR-19b-3p
                                     bta-miR-19b
                                     ppa-miR-19b
                                     tgu-miR-19b-3p
                                      mmu-miR-19b-3p
                                     pha-miR-19b
                                     oan-miR-19b-3p
                                     ppy-miR-19b
gga-miR-19b-5p
                                     cgr-miR-19b-3p
oha-miR-19b-5p
                                     chi-miR-19b-3p
                                     mml-miR-19b
dno-miR-19b-5p
                                     cpo-miR-19b-3p
                                     xtr-miR-19b
rno-miR-19b-1-5p
                                     ssc-miR-19b
cli-miR-19b-5p
cpi-miR-19b-5p
                                     mze-miR-19b
                                     sha-miR-19b
tgu-miR-19b-1-5p
                                     oha-miR-19b-3p
                                     rno-miR-19b-3p
                                     cpi-miR-19b-3p
                                     cli-miR-19b-3p
ocu-miR-19b-5p
                                     fru-miR-19b
                                     xla-miR-19b
                                     dre-miR-19b-3p
oan-miR-19b-1-5p
                                     aca-miR-19b
                                     pbv-miR-19b-3p
chi-miR-19b-5p
                                     mne-miR-19b
                                     nbr-miR-19b
                                     lca-miR-19b
xla-miR-19b-5p
                                     mdo-miR-19b-3p
ami-miR-19b-5p
                                     cja-miR-19b
                                     ola-miR-19b
mmu-miR-19b-1-5p
                                     tch-miR-19b-3p
                                      ssa-miR-19c-3p
                                      age-miR-19b
                                     sla-miR-19b
                                     oni-miR-19b
hsa-miR-19b-1-5p
                                     pal-miR-19-3p
                                     dno-miR-19b-3p
                                     ptr-miR-19b
```

tni-miR-19b