COMANDOS BÁSICOS:

Comando man:

```
MAN(1)                          Manual pager utils                          MAN(1)

NAME
       man - an interface to the system reference manuals

SYNOPSIS
       man [man options] [[section] page ...] ...
       man -k [apropos options] regexp ...
       man -K [man options] [section] term ...
       man -f [whatis options] page ...
       man -l [man options] file ...
       man -w|-W [man options] page ...

DESCRIPTION
       man  is the system's manual pager.  Each page argument given to man is normally the name of a program, utility
       or function.  The manual page associated with each of these arguments is then found and displayed.  A section,
       if  provided,  will direct man to look only in that section of the manual.  The default action is to search in
       all of the available sections following a pre-defined order (see DEFAULTS), and to show only  the  first  page
       found, even if page exists in several sections.

       The table below shows the section numbers of the manual followed by the types of pages they contain.

       1   Executable programs or shell commands
       2   System calls (functions provided by the kernel)
       3   Library calls (functions within program libraries)
       4   Special files (usually found in /dev)
       5   File formats and conventions, e.g. /etc/passwd
       6   Games
       7   Miscellaneous (including macro packages and conventions), e.g. man(7), groff(7)
       8   System administration commands (usually only for root)
       9   Kernel routines [Non standard]

       A manual page consists of several sections.

       Conventional  section  names  include  NAME,  SYNOPSIS,  CONFIGURATION, DESCRIPTION, OPTIONS, EXIT STATUS, RE-
       TURN VALUE, ERRORS, ENVIRONMENT, FILES, VERSIONS, CONFORMING TO, NOTES, BUGS, EXAMPLE, AUTHORS, and SEE ALSO.

       The following conventions apply to the SYNOPSIS section and can be used as a guide in other sections.

       bold text          type exactly as shown.
       italic text        replace with appropriate argument.
       [-abc]             any or all arguments within [ ] are optional.
       -a|-b              options delimited by | cannot be used together.
Manual page man(1) line 1 (press h for help or q to quit)
```

Comando pwd:

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/OneDrive/Documentos# pwd
/mnt/c/Users/User/OneDrive/Documentos
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/OneDrive/Documentos#
```

Comando ls:

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/OneDrive/Documentos# ls
Anotações.txt                'League of Legends'              'My Games'           Rockstar Games   desktop.ini
Assinatura.png               "Marvel's Spider-Man Remastered" 'Nome Completo.jpeg'  UFU
'Gravações de som'           Modelos Personalizados do Office  Overwatch            Zoom
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/OneDrive/Documentos#
```

Comando cd:

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/OneDrive/Documentos# cd UFU/
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/OneDrive/Documentos/UFU#
```

Comando clear:

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/OneDrive/Documentos# cd UFU/
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/OneDrive/Documentos/UFU# clear
```

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/OneDrive/Documentos/UFU#
```

Redefinindo Comando e Utilizando o Comando ping:

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User# alias cls='clear;ls'
root@DESKTOP-B2C8JDM:/mnt/c/Users/User# ping
ping: usage error: Destination address required
root@DESKTOP-B2C8JDM:/mnt/c/Users/User#
```

Comando ping para o link do Dropbox:

```
C:\. root@DESKTOP-B2C8JDM: /mnt/c/Users/User
root@DESKTOP-B2C8JDM:/mnt/c/Users/User# ping www.dropbox.com
PING www-env.dropbox-dns.com (162.125.5.18) 56(84) bytes of data.
64 bytes from 162.125.5.18 (162.125.5.18): icmp_seq=1 ttl=52 time=152 ms
64 bytes from 162.125.5.18 (162.125.5.18): icmp_seq=2 ttl=52 time=152 ms
64 bytes from 162.125.5.18 (162.125.5.18): icmp_seq=3 ttl=52 time=152 ms
64 bytes from 162.125.5.18 (162.125.5.18): icmp_seq=4 ttl=52 time=150 ms
64 bytes from 162.125.5.18 (162.125.5.18): icmp_seq=5 ttl=52 time=175 ms
^C
--- www-env.dropbox-dns.com ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4192ms
rtt min/avg/max/mdev = 150.195/156.414/175.197/9.424 ms
root@DESKTOP-B2C8JDM:/mnt/c/Users/User#
```

Fazendo o Download do link passado:

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User# wget https://www.dropbox.com/s/2kdb1j3b477ygyv/sample.tar.gz
--2022-11-04 10:23:26--  https://www.dropbox.com/s/2kdb1j3b477ygyv/sample.tar.gz
Resolving www.dropbox.com (www.dropbox.com)... 162.125.5.18, 2620:100:601d:18::a27d:512
Connecting to www.dropbox.com (www.dropbox.com)|162.125.5.18|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: /s/raw/2kdb1j3b477ygyv/sample.tar.gz [following]
--2022-11-04 10:23:26--  https://www.dropbox.com/s/raw/2kdb1j3b477ygyv/sample.tar.gz
Reusing existing connection to www.dropbox.com:443.
HTTP request sent, awaiting response... 302 Found
Location: https://uc51d4ce973701d72c091a3cc2e3.dl.dropboxusercontent.com/cd/0/inline/BwGfLwbAlBDtLaU0ROxemxGiYAAqbPN4uRS5dts5ZdMDjCSuLGq96
lJ0aQu1d90Sar1ySC9Akctfs079lhzqfojxjx36iciAZ3o_h5PL4ylObfeyh3wnYWm0WQ-qMtADxzXHOiLSHHcR87P9gGvkrdSZ3oWUMpqrAbN6fq9lrEEX8Q/file# [following]
--2022-11-04 10:23:27--  https://uc51d4ce973701d72c091a3cc2e3.dl.dropboxusercontent.com/cd/0/inline/BwGfLwbAlBDtLaU0ROxemxGiYAAqbPN4uRS5dt
s5ZdMDjCSuLGq96lJ0aQu1d90Sar1ySC9Akctfs079lhzqfojxjx36iciAZ3o_h5PL4ylObfeyh3wnYWm0WQ-qMtADxzXHOiLSHHcR87P9gGvkrdSZ3oWUMpqrAbN6fq9lrEEX8Q/f
ile
Resolving uc51d4ce973701d72c091a3cc2e3.dl.dropboxusercontent.com (uc51d4ce973701d72c091a3cc2e3.dl.dropboxusercontent.com)... 162.125.5.15,
2620:100:601d:15::a27d:50f
Connecting to uc51d4ce973701d72c091a3cc2e3.dl.dropboxusercontent.com (uc51d4ce973701d72c091a3cc2e3.dl.dropboxusercontent.com)|162.125.5.15
|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: /cd/0/inline2/BwHeXhysq7ioe1wPGT1rBnEyLqQ36svKKEDI4VSMpojZp02czIZDqIUjyp94kj-4b_li76DHiNeBZyTVvjW403qRRnACcl95cL7WTVPi1wxwUK3iZS
L7K0gbxGKapkwtPCMc82Nj7AV9--CMKcWaa_e8ZuEIfoXJH9fxbxCHnUNt0fLfPquaTElECFzxgXIr7EwRJ4gAmtF4ip28aWxmsjQMi5tj8z2QVrsCzyxvQ84V33E8b6q9-VdXFknW
2Rx2WqcGdEmN_LIfDuB5bGR60ap6jQUypAeqmu7qlMeQl_kCfz8-hBByEMjW2CNI5iPyDk9JpPUKvA1g-kx_8hqIi63vMIZ8UufZwYCpKwWe2LMs1j2Kjh8IB9h-lFFlPEXEZdMl28
lp1Q0DDaOgYBxs_8Mx9ezz27I6QhWM41h2oE_s-g/file [following]
--2022-11-04 10:23:28--  https://uc51d4ce973701d72c091a3cc2e3.dl.dropboxusercontent.com/cd/0/inline2/BwHeXhysq7ioe1wPGT1rBnEyLqQ36svKKEDI4
VSMpojZp02czIZDqIUjyp94kj-4b_li76DHiNeBZyTVvjW403qRRnACcl95cL7WTVPi1wxwUK3iZSL7K0gbxGKapkwtPCMc82Nj7AV9--CMKcWaa_e8ZuEIfoXJH9fxbxCHnUNt0fL
fPquaTElECFzxgXIr7EwRJ4gAmtF4ip28aWxmsjQMi5tj8z2QVrsCzyxvQ84V33E8b6q9-VdXFknW2Rx2WqcGdEmN_LIfDuB5bGR60ap6jQUypAeqmu7qlMeQl_kCfz8-hBByEMjW2
CNI5iPyDk9JpPUKvA1g-kx_8hqIi63vMIZ8UufZwYCpKwWe2LMs1j2Kjh8IB9h-lFFlPEXEZdMl281p1Q0DDaOgYBxs_8Mx9ezz27I6QhWM41h2oE_s-g/file
Reusing existing connection to uc51d4ce973701d72c091a3cc2e3.dl.dropboxusercontent.com:443.
HTTP request sent, awaiting response... 200 OK
Length: 2047076 (2.0M) [application/octet-stream]
Saving to: 'sample.tar.gz'

sample.tar.gz          100%[===================================>]   1.95M  1.78MB/s    in 1.1s

2022-11-04 10:23:30 (1.78 MB/s) - 'sample.tar.gz' saved [2047076/2047076]
```

Descompactando arquivo sample:

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User# tar -xvf sample.tar.gz
sample/
sample/andromeda.jpg
sample/SOAPdenovo2.pdf
sample/sequence.fasta
sample/Poster.pdf
sample/pan-genome-size.pdf
sample/proteinas/
sample/proteinas/Rv0001
sample/proteinas/Rv0002
sample/proteinas/Rv0003
sample/proteinas/Rv0004
sample/proteinas/Rv0005
sample/proteinas/Rv0006
sample/proteinas/Rv0007
sample/proteinas/Rv0009
sample/proteinas/Rv0012
sample/proteinas/Rv0013
sample/proteinas/Rv0023
sample/proteinas/Rv0024
sample/proteinas/Rv0025
sample/proteinas/Rv0026
sample/proteinas/Rv0027
sample/proteinas/Rv0028
sample/proteinas/Rv0029
sample/proteinas/Rv0030
sample/proteinas/Rv0031
sample/proteinas/Rv0032
sample/proteinas/Rv0033
sample/proteinas/Rv0034
sample/proteinas/Rv0035
sample/proteinas/Rv0038
sample/proteinas/Rv0041
sample/proteinas/Rv0049
sample/proteinas/Rv0050
sample/proteinas/Rv0051
sample/proteinas/Rv0052
sample/proteinas/Rv0053
sample/proteinas/Rv0054
sample/proteinas/Rv0055
sample/proteinas/Rv0056
```

Mexendo nos arquivos da pasta sample(Comando 'cls' + 'ls proteinas'):

Depois de movido os dados de proteínas para pasta mt.fasta, fazendo listagem da cabeça e do fim do arquivo com o comando head, definindo o tamanho com o comando -n:

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# head -n 20  mt.fasta
>Rv0001
MTDDPGSGFTTVWNAVVSELNGDPKVDDGPSSDANLSAPLTPQQRAWLNLVQPLTIVEGF
ALLSVPSSFVQNEIERHLRAPITDALSRRLGHQIQLGVRIAPPATDEADDTTVPPSENPA
TTSPDTTTDNDEIDDSAAARGDNQHSWPSYFTERPHNTDSATAGVTSLNRRYTFDTFVIG
ASNRFAHAAALAIAEAPARAYNPLFIWGESGLGKTHLLHAAGNYAQRLFPGMRVKYVSTE
EFTNDFINSLRDDRKVAFKRSYRDVDVLLVDDIQFIEGKEGIQEEFFHTFNTLHNANKQI
VISSDRPPKQLATLEDRLRTRFEWGLITDVQPPELETRIAILRKKAQMERLAVPDDVLEL
IASSIERNIRELEGALIRVTAFASLNKTPIDKALAEIVLRDLIADANTMQISAATIMAAT
AEYFDTTVEELRGPGKTRALAQSRQIAMYLCRELTDLSLPKIGQAFGRDHTTVMYAQRKI
LSEMAERREVFDHVKELTTRIRQRSKR
>Rv0002
MDAATTRVGLTDLTFRLLRESFADAVSWVAKNLPARPAVPVLSGVLLTGSDNGLTISGFD
YEVSAEAQVGAEIVSPGSVLVSGRLLSDITRALPNKPVDVHVEGNRVALTCGNARFSLPT
MPVEDYPTLPTLPEETGLLPAELFAEAISQVAIAAGRDDTLPMLTGIRVEILGETVVLAA
TDRFRLAVRELKWSASSPDIEAAVLVPAKTLAEAAKAGIGGSDVRLSLGTGPGVGKDGLL
GISGNGKRSTTRLLDAEFPKFRQLLPTEHTAVATMDVAELIEAIKLVALVADRGAQVRME
FADGSVRLSAGADDVGRAEEDLVVDYAGEPLTIAFNPTYLTDGLSSLRSERVSFGFTTAG
KPALLRPVSGDDRPVAGLNGNGPFPAVSTDYVYLLMPVRLPG
>Rv0003
MYVRHLGLRDFRSWACVDLELHPGRTVFVGPNGYGKTNLIEALWYSTTLGSHRVSADLPL
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# _
```

COMANDOS AVANÇADOS:

Comando "wc" para saber a quantidade de texto no arquivo :

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# wc sequence.fasta
 13  12 681 sequence.fasta
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# _
```

Pipeline com o comando head e wc, mostrando apenas uma linha:

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# head -n 1 sequence.fasta | wc
      1       1      14
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample#
```

EX3:

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# head -n 2 sequence.fasta | wc
      2       2      85
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# head -n 1 sequence.fasta
>Cp1002_0126a
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# ls proteinas | wc -l
3596
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# ls proteinas | wx -l
wx: command not found
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# ls proteinas | wc -l
3596
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# ls proteinas | wc
   3596    3596   26795
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# grep AKAP proteinas/*
proteinas/Rv0338c:CQSQCPAWNTGKPLSPKLVIMDLRDHWMAKAPYILGQKDASAGGEAGHQEHHHVPESGFG
proteinas/Rv0425c:AAGLLSGYLLARKVVDAQAPRPAPAHEWHAMSVEQVRKALPSPDEQAPAKAPPSPYPARA
proteinas/Rv0540:MSCLPVSVLVVAKAPEPGRVKTRLAAAIGDKVAADIAAAALLDTLDAVAAAPVTARAVAL
proteinas/Rv0706:PAKDQRSAKSSRARRTEASKAASKVGATAPAKKAAAKAPAKKAPASSGVKKTPAKKAPAK
proteinas/Rv1425:KADVGNQVSSMTASLATHIEDPAKRLAAIHESTLSAKEMAKAPSAHQIMGLTETTPPGLL
proteinas/Rv1426c:ATLPTEPMRSRGRNLPLRTAMARRRYVETTNVVCYGPYGRANLADIWRRRDLPRDAKAPV
proteinas/Rv1484:MTGLLDGKRILVSGIITDSSIAFHIARVAQEQGAQLVLTGFDRLRLIQRITDRLPAKAPL
proteinas/Rv1530:VAALTEQTGGLADVVVDVTAKAPAAFAQAIALARPAGTVVVAGTRGVGSGAPGFSPDVVV
proteinas/Rv1985c:GFTAAAAAKAPSLAWNRDDGLQDMLVRKAFRRAITRPTHFVPTTEGFTAAARAGLGWGMF
proteinas/Rv2164c:QTSPMLSPFDRPAPAKNTSQAKARAKARKAKAPKLVRPTPMERLAARLTSIDLRPRTLAN
proteinas/Rv2215:APYVTPLVRKLASENNIDLAGVTGTGVGGRIRKQDVLAAAEQKKRAKAPAPAAQAAAAPA
proteinas/Rv2448c:DFLAKAPDAVIAKIRDRQRVAQQETERITTRLAALQ
proteinas/Rv2536:VFLVGIVGVAVGRWLVDRQLAKAPVRHHGLAAEHERAADTDVFSAVRADDSPTGEMQVAQ
proteinas/Rv2703:ASAPQDTTTTSTIPKRKTRAAAKSAAAKAPSARGHATKPRAPKDAQHEAATDPEDALDSVE
proteinas/Rv2780:VPGAKAPKLVSNSLVAHMKPGAVLVDIAIDQGGCFEGSRPTTYDHPTFAVHDTLFYCVAN
proteinas/Rv2973c:LGMVVVDEQHRFGVEQRDQLRAKAPAGITPHLLVMTATPIPRTVALTVYGDLETSTLREL
proteinas/Rv3099c:LDEIAATMGFVVGKLAKAPDGSRVLLELTGPLSRSIRVSVDGRARVVDDFGGPAPTATIR
proteinas/Rv3269:MAIQVFLAKATTTVITGLAGVTAYEILKKAAAKAPLRQTAVSAAALGLRGTRKAEEAAES
proteinas/Rv3691:LAKAPGDLLLVAPTSRTRTALTPQLRIAAASPFNSQPNCTLREANRAGSVQWGPSDTYQA
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample#
```

EX4:

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# grep AKAP proteinas/* wc -l
proteinas/Rv0338c
proteinas/Rv0425c
proteinas/Rv0540
proteinas/Rv0706
proteinas/Rv1425
proteinas/Rv1426c
proteinas/Rv1484
proteinas/Rv1530
proteinas/Rv1985c
proteinas/Rv2164c
proteinas/Rv2215
proteinas/Rv2448c
proteinas/Rv2536
proteinas/Rv2703
proteinas/Rv2780
proteinas/Rv2973c
proteinas/Rv3099c
proteinas/Rv3269
proteinas/Rv3691
```

EX5:

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# grep '>' mt2.fasta | wc -l
3596
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample#
```

EX6, uso do comando find:

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# find . -mtime +2
./andromeda.jpg
./pan-genome-size.pdf
./Poster.pdf
./proteinas/Rv0001
./proteinas/Rv0002
./proteinas/Rv0003
./proteinas/Rv0004
./proteinas/Rv0005
./proteinas/Rv0006
./proteinas/Rv0007
./proteinas/Rv0008c
./proteinas/Rv0009
./proteinas/Rv0010c
./proteinas/Rv0011c
./proteinas/Rv0012
./proteinas/Rv0013
./proteinas/Rv0014c
./proteinas/Rv0015c
./proteinas/Rv0016c
./proteinas/Rv0017c
./proteinas/Rv0018c
./proteinas/Rv0019c
./proteinas/Rv0020c
./proteinas/Rv0021c
./proteinas/Rv0022c
```

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# find . -mtime -1
.
./mt.fasta
./mt2.fasta
./proteinas
```

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# find . -size +500k
./mt.fasta
./mt2.fasta
./Poster.pdf
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# find . -size +500k -ls
14918173765739388    1228 -rwxrwxrwx   1 root     root      1253722 Nov  4 10:36 ./mt.fasta
 5066549581015839    1228 -rwxrwxrwx   1 root     root      1253722 Nov  4 11:01 ./mt2.fasta
 9851624184947862     600 -rwxrwxrwx   1 root     root       611453 May  5  2014 ./Poster.pdf
```

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# find . -name '*.pdf' -ls
1688849860338841     316 -rwxrwxrwx   1 root     root       322808 Feb 24  2014 ./pan-genome-size.pdf
9851624184947862     600 -rwxrwxrwx   1 root     root       611453 May  5  2014 ./Poster.pdf
2533274790470607     376 -rwxrwxrwx   1 root     root       382965 Jan  7  2014 ./SOAPdenovo2.pdf
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample#
```

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# find . -perm -g=w -type d
.
./proteinas
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample#
```

EX5:

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# find . -perm -o=x
.
./andromeda.jpg
./maiores.fasta
./mt.fasta
./mt2.fasta
./pan-genome-size.pdf
./Poster.pdf
./proteinas
./proteinas/maiores.fasta
./proteinas/Rv0001
./proteinas/Rv0002
./proteinas/Rv0003
./proteinas/Rv0004
./proteinas/Rv0005
./proteinas/Rv0006
./proteinas/Rv0007
./proteinas/Rv0008c
./proteinas/Rv0009
./proteinas/Rv0010c
./proteinas/Rv0011c
./proteinas/Rv0012
./proteinas/Rv0013
```

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# find ./proteinas -size +1k -type f -ls
1407374883628395    4 -rwxrwxrwx  1 root     root         2562 May   5  2014 ./proteinas/Rv0101
5910974511144855    4 -rwxrwxrwx  1 root     root         1669 May   5  2014 ./proteinas/Rv0107c
2814749767195179    4 -rwxrwxrwx  1 root     root         1222 May   5  2014 ./proteinas/Rv0194
3940649674170348    4 -rwxrwxrwx  1 root     root         1433 May   5  2014 ./proteinas/Rv0236c
8444249301540877    4 -rwxrwxrwx  1 root     root         1239 May   5  2014 ./proteinas/Rv0266c
9288674231543044    4 -rwxrwxrwx  1 root     root         1361 May   5  2014 ./proteinas/Rv0284
6473924464566314    4 -rwxrwxrwx  1 root     root         2250 May   5  2014 ./proteinas/Rv0304c
4503599627591748    4 -rwxrwxrwx  1 root     root         3364 May   5  2014 ./proteinas/Rv0355c
7318349394627333    4 -rwxrwxrwx  1 root     root         1112 May   5  2014 ./proteinas/Rv0386
3096224743967645    4 -rwxrwxrwx  1 root     root         1434 May   5  2014 ./proteinas/Rv0405
1970324837195888    4 -rwxrwxrwx  1 root     root         1574 May   5  2014 ./proteinas/Rv0425c
3940649674170595    4 -rwxrwxrwx  1 root     root         1337 May   5  2014 ./proteinas/Rv0578c
7318349394698514    4 -rwxrwxrwx  1 root     root         1122 May   5  2014 ./proteinas/Rv0630c
5910974511145238    4 -rwxrwxrwx  1 root     root         1125 May   5  2014 ./proteinas/Rv0631c
6192449487810527    4 -rwxrwxrwx  1 root     root         1244 May   5  2014 ./proteinas/Rv0648
3659174697418513    4 -rwxrwxrwx  1 root     root         1200 May   5  2014 ./proteinas/Rv0667
6473924464525152    4 -rwxrwxrwx  1 root     root         1346 May   5  2014 ./proteinas/Rv0668
4503599627583227    4 -rwxrwxrwx  1 root     root         1263 May   5  2014 ./proteinas/Rv1020
3377699720741023    4 -rwxrwxrwx  1 root     root         1261 May   5  2014 ./proteinas/Rv1161
5910974511138549    4 -rwxrwxrwx  1 root     root         1617 May   5  2014 ./proteinas/Rv1181
19140298416539514   4 -rwxrwxrwx  1 root     root         1027 May   5  2014 ./proteinas/Rv1183
2251799813907151    4 -rwxrwxrwx  1 root     root         1261 May   5  2014 ./proteinas/Rv1248c
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample#
3096224744035589    4 -rwxrwxrwx  1 root     root         1187 May   5  2014 ./proteinas/Rv1358
13229323905619226   4 -rwxrwxrwx  1 root     root         1142 May   5  2014 ./proteinas/Rv1384
5910974511145796    4 -rwxrwxrwx  1 root     root         1361 May   5  2014 ./proteinas/Rv1450c
2251799813907307    4 -rwxrwxrwx  1 root     root         1175 May   5  2014 ./proteinas/Rv1522c
2251799813907310    4 -rwxrwxrwx  1 root     root         2153 May   5  2014 ./proteinas/Rv1527c
9570149208380937    4 -rwxrwxrwx  1 root     root         1067 May   5  2014 ./proteinas/Rv1536
1970324837193237    4 -rwxrwxrwx  1 root     root         1212 May   5  2014 ./proteinas/Rv1547
2251799813907365    4 -rwxrwxrwx  1 root     root         1201 May   5  2014 ./proteinas/Rv1640c
2251799813907367    4 -rwxrwxrwx  1 root     root         1037 May   5  2014 ./proteinas/Rv1651c
5629499534431915    4 -rwxrwxrwx  1 root     root         2170 May   5  2014 ./proteinas/Rv1661
21392098230228661   4 -rwxrwxrwx  1 root     root         1637 May   5  2014 ./proteinas/Rv1662
9570149208381117    4 -rwxrwxrwx  1 root     root         1042 May   5  2014 ./proteinas/Rv1664
2814749767328721    4 -rwxrwxrwx  1 root     root         1080 May   5  2014 ./proteinas/Rv1753c
3377699720750129    4 -rwxrwxrwx  1 root     root         1493 May   5  2014 ./proteinas/Rv1917c
1970324837194251    4 -rwxrwxrwx  1 root     root         1358 May   5  2014 ./proteinas/Rv2006
5066549581014205    8 -rwxrwxrwx  1 root     root         4230 May   5  2014 ./proteinas/Rv2048c
3940649674171608    4 -rwxrwxrwx  1 root     root         1223 May   5  2014 ./proteinas/Rv2062c
1407374883357521    4 -rwxrwxrwx  1 root     root         1038 May   5  2014 ./proteinas/Rv2101
3940649674171648    4 -rwxrwxrwx  1 root     root         1221 May   5  2014 ./proteinas/Rv2124c
3096224744039976    4 -rwxrwxrwx  1 root     root         1495 May   5  2014 ./proteinas/Rv2379c
3377699720750635    4 -rwxrwxrwx  1 root     root         1720 May   5  2014 ./proteinas/Rv2380c
8162774324831797    4 -rwxrwxrwx  1 root     root         1030 May   5  2014 ./proteinas/Rv2381c
4785074604303929    4 -rwxrwxrwx  1 root     root         1447 May   5  2014 ./proteinas/Rv2383c
3659174697461477    4 -rwxrwxrwx  1 root     root         1661 May   5  2014 ./proteinas/Rv2476c
3377699720750846    4 -rwxrwxrwx  1 root     root         1165 May   5  2014 ./proteinas/Rv2488c
```

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# find ./proteinas -size +1k -type f -exec grep AKAP {} \;
AAGLLSGYLLARKVVDAQAPRPAPAHEWHAMSVEQVRKALPSPDEQAPAKAPPSPYPARA
```

EX7:

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# sed -i "s/ACP/<ACP>/g" maiores.fasta
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# _
```

EX8:

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# grep "AK[ARP]P" proteinas/*
proteinas/Rv0338c:CQSQCPAWNTGKPLSPKLVIMDLRDHWMAKAPYILGQKDASAGGEAGHQEHHHVPESGFG
proteinas/Rv0338c:MAAGAKRPGAKKAAPTPAAPAAPAAPVKGLGIAAGAKRPGAKKTPPPAPGLAEPAAQPQP
proteinas/Rv0425c:AAGLLSGYLLARKVVDAQAPRPAPAHEWHAMSVEQVRKALPSPDEQAPAKAPPSPYPARA
proteinas/Rv0540:MSCLPVSVLVVAKAPEPGRVKTRLAAAIGDKVAADIAAAALLDTLDAVAAAPVTARAVAL
proteinas/Rv0573c:DTGYSYPVAVSDRIVGELARLRHADTAEAHPGSNVVGAKAKRP
proteinas/Rv0581:MDKTTVYLPDELKAAVKRAARQRGVSEAQVIRESIRAAVGGAKPPPRGGLYAGSEPIARR
proteinas/Rv0586:TLAALTTTMTAAAKRPSDYRKLADAICSGDPTGAKKAAQDLLELANTSLMAVLVSQASRQ
proteinas/Rv0706:PAKDQRSAKSSRARRTEASKAASKVGATAPAKKAAAKAPAKKAPASSGVKKTPAKKAPAK
proteinas/Rv0949:MSVHATDAKPPGPSPADQLLDGLNPQQRQAVVHEGSPLLIVAGAGSGKTAVLTRRIAYLM
proteinas/Rv0983:GSGIILSAEGLILTNNHVIAAAAKPPLGSPPPKTTVTFSDGRTAPFTVVGADPTSDIAVV
proteinas/Rv1024:MPEAKRPESKRRSPASRPGKAGDSVRGGRATKPSAKPSTPAPHASRKTTRTPHEHIVEPI
proteinas/Rv1215c:MARNPSPALDRPWRRPGALRYALERVRGVAKPPITVTDPPADVVIERDVEVPTRDGTLLR
proteinas/Rv1425:KADVGNQVSSMTASLATHIEDPAKRLAAIHESTLSAKEMAKAPSAHQIMGLTETTPPGLL
proteinas/Rv1426c:ATLPTEPMRSRGRNLPLRTAMARRRYVETTNVVCYGPYGRANLADIWRRRDLPRDAKAPV
proteinas/Rv1483:MTATATEGAKPPFVSRSVLVTGGNRGIGLAIAQRLAADGHKVAVTHRGSGAPKGLFGVEC
proteinas/Rv1484:MTGLLDGKRILVSGIITDSSIAFHIARVAQEQGAQLVLTGFDRLRLIQRITDRLPAKAPL
proteinas/Rv1530:VAALTEQTGGLADVVVDVTAKAPAAFAQAIALARPAGTVVVAGTRGVGSGAPGFSPDVVV
proteinas/Rv1660:TWRSLGEIGNLSSASVLHVLRDTIAKPPPSGSPGLMIAMGPGFCSELVLLRWH
proteinas/Rv1731:TDWAKRPVIERAAVIRRYRDLVIENREFLMDLLQAEAGKARWAAQEEIVDLIANANYYAR
proteinas/Rv1985c:GFTAAAAAKAPSLAWNRDDGLQDMLVRKAFRRAITRPTHFVPTTEGFTAAARAGLGWGMF
proteinas/Rv2164c:QTSPMLSPFDRPAPAKNTSQAKARAKARKAKAPKLVRPTPMERLAARLTSIDLRPRTLAN
proteinas/Rv2183c:EQHPLLTVIADHSLALLEVIRAIVDDIDRSAKPPPEGPPGGGQTGASGGENTNGEGSMKS
proteinas/Rv2215:APYVTPLVRKLASENNIDLAGVTGTGVGGRIRKQDVLAAAEQKKRAKAPAPAAQAAAAPA
proteinas/Rv2448c:DFLAKAPDAVIAKIRDRQRVAQQETERITTRLAALQ
proteinas/Rv2482c:LYAKRPLMSDAMLRVFFEAYEIVADVLRDAPPDIGPEELTELALGLGRQFVAQGRVRSSE
proteinas/Rv2528c:VDATAKRPSGDDVQVSPEDLIDAALAENRAAVEGEILKKALTLSPTGFEDLVIRLLEAMG
proteinas/Rv2536:VFLVGIVGVAVGRWLVDRQLAKAPVRHHGLAAEHERAADTDVFSAVRADDSPTGEMQVAQ
proteinas/Rv2703:ASAPQDTTTSTIPKRKTRAAAKSAAAKAPSARGHATKPRAPKDAQHEAATDPEDALDSVE
proteinas/Rv2780:VPGAKAPKLVSNSLVAHMKPGAVLVDIAIDQGGCFEGSRPTTYDHPTFAVHDTLFYCVAN
proteinas/Rv2796c:MRWPTAWLLALVCVMATGCGPSGHGTRAGEEGPLSPEKVAELENPLRAKPPLEDAKDQYR
proteinas/Rv2895c:PLTLDSFADLPTAKRPPVRTMTVRHVDAAAREIAVDIVLHGEHGVAGPWAAGAQRGQPIY
proteinas/Rv2935:LGGDSLMAISIAMAAANEGLTITPQDLYEYPTLASLTAAVDASFASSGLAKPPEAQANPA
proteinas/Rv2973c:LGMVVVDEQHRFGVEQRDQLRAKAPAGITPHLLVMTATPIPRTVALTVYGDLETSTLREL
proteinas/Rv2986c:VRKAATKAPAKKAAAKRPATKAPAKKATARRGRK
proteinas/Rv3099c:LDEIAATMGFVVGKLAKAPDGSRVLLELTGPLSRSIRVSVDGRARVVDDFGGPAPTATIR
proteinas/Rv3212:IQRIVPEPGVRPGSGARVLVVSQNNTAVYLPARSGAQPRVDVIDETGATVSSTLLAKPPS
proteinas/Rv3240c:DGSAQVQRNGGGAHKTPAGVPAGASRRERREAARRQGRGAKPPKSVKKR
proteinas/Rv3254:GTWVLTTFGVADAKPPPTFDEMRALADKLLPARFTAALAQAQPIGCPAFHAFPASRWRRY
proteinas/Rv3269:MAIQVFLAKATTTVITGLAGVTAYEILKKAAAKAPLRQTAVSAAALGLRGTRKAEEAAES
proteinas/Rv3691:LAKAPGDLLLVAPTSRTRTALTPQLRIAAASPFNSQPNCTLREANRAGSVQWGPSDTYQA
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# _
proteinas/Rv3774:RYVAAWNAAFLPSKDLTEGISATFAKRPPQFTGE
proteinas/Rv3811:DLAGTSARVRAKRPDGDWGPWYQTEYETEPRDPAGTDGSVELGGLNPGPRSTDPVFVGTT
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample#
```

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# grep "AK.P" proteinas/*
proteinas/Rv0014c:EGLSADLDAVVLKALAKNPENRYQTAAEMRADLVRVHNGEPPEAPKVLTDAERTSLLSSA
proteinas/Rv0060:ELLASTHWVATREGAKEPATAAAAVRKWTKRKGRIYSDDRIGVALDRILMTA
proteinas/Rv0061:LLAVAHGQVAKTPSATRAIAFRHVRLMRVRWICAGNRGRKHKRRCTTQYRSTQASKLQLH
proteinas/Rv0072:PRVSEGRSPSKPDEVAASSTMGRHLGDTVEVGARRLRVVGIVPNSTALAKIPNVFLTTEG
proteinas/Rv0126:ERDYMYAEYAKDPRMKANVGIRRRLAPLLDNDRNQIELFTALLLSLPGSPVLYYGDEIGM
proteinas/Rv0147:AVRERVIREVPAGGMMVNHLAFQVSTAKLPFGGVGASGMGAYHGRWGFEEFSHRKSVLTK
proteinas/Rv0156:LVLQVILFVAVVFGTLNVIGGFIVTDRMLGMFKAKKPAVPAKPDRDEALR
proteinas/Rv0197:RVVLNEIAKDPGRSMIVIDPVVTDTAKMADFHLRVQPGCDAWCLAALAAVLVQENLCNEA
proteinas/Rv0206c:VGGTPALELDSIHGLFAKMPLMVVILLTTTIVLMFLAFGSVVLPIKATLMSALTLGSTMG
proteinas/Rv0213c:PGTPLYQAYSDAGYLTAKWPLGQWEFVDPEASRVYADVVAKVAPDVGISFDEAEAYFLSR
proteinas/Rv0283:SSYALKDSGKTISDTVQYYAVLPDGLQQISPVLAAILRNNNSYGLQQPPRLGADEVAKLP
proteinas/Rv0309:PNHWWSGDDNSPTFNSMQVCQKSQCPFSTADSENLQIPQYKHSVVMGVNKAKVPGKGSAF
proteinas/Rv0338c:CQSQCPAWNTGKPLSPKLVIMDLRDHWMAKAPYILGQKDASAGGEAGHQEHHHVPESGFG
proteinas/Rv0338c:MAAGAKRPGAKKAAPTPAAPAAPAAPVKGLGIAAGAKRPGAKKTPPPAPGLAEPAAQPQP
proteinas/Rv0353:MAKNPKDGESRTFLISVAAELAGMHAQTLRTYDRLGLVSPRRTSGGGRRYSLHDVELLRQ
proteinas/Rv0363c:SGLGVKDMVTGAVALAEFTHVIAAKYPVNVALHTDHCPKDKLDSYVRPLLAISAQRVSKG
proteinas/Rv0370c:GVAETIDWVAALVALGVADLTAADSSPALASLGALAKTPDDRTQIRDAYQAFTECSHA
proteinas/Rv0372c:LVASTVRGASILDSLDLSDAERARVHTPVGLAIGAKTPAEIAVSIAAELIATLRGGGPRG
proteinas/Rv0373c:TGFARDYIMVGEIAANRDGKILAIRSNVLADHGAFNAQAAPAKYPAGFFGVFTGSYDIEA
proteinas/Rv0375c:CTVLDAVCLAKGPSGEREIAIDDFLVGPYETALAHNEVLIEVRIPLRHNTSSAYAKVERR
proteinas/Rv0425c:AAGLLSGYLLARKVVDAQAPRPAPAHEWHAMSVEQVRKALPSPDEQAPAKAPPSPYPARA
proteinas/Rv0444c:AEQVLTAPDVRTVSRPLGAGTATVVFSRDRNTGLLVMNNVAPPSRGTVYQMWLLGGAKGP
proteinas/Rv0447c:MTVETSQTPSAAIDSDRWPAVAKVPRGPLAAASAAIANRLLRRTATHLPLRLVYSDGTAT
proteinas/Rv0462:TEQQARNEGYDVVVAKFPFTANAKAHGVGDPSGFVKLVADAKHGELLGGHLVGHDVAELL
proteinas/Rv0469:LEPGMTLLDIGCGWGGGLQRAIENYDVNVIGITLSRNQFEYSKAKLAKIPTERSVQVRLQ
proteinas/Rv0486:GVDLDVFRPGDRRAARAALGLPVDERVVAFVGRIQPLKAPDIVLRAAAKLPGVRIIVAGG
proteinas/Rv0540:MSCLPVSVLVVAKAPEPGRVKTRLAAAIGDKVAADIAAAALLDTLDAVAAAPVTARAVAL
proteinas/Rv0548c:TVGLQWAAEINAKSPQAQRMLKFAFNLLDDGLVGQQLFAGEATRLAYMTDEAVEGRDAFL
proteinas/Rv0573c:DTGYSYPVAVSDRIVGELARLRHADTAEAHPGSNVVGAKAKRP
proteinas/Rv0581:MDKTTVYLPDELKAAVKRAARQRGVSEAQVIRESIRAAVGGAKPPPRGGLYAGSEPIARR
proteinas/Rv0586:TLAALTTTMTAAAKRPSDYRKLADAICSGDPTGAKKAAQDLLELANTSLMAVLVSQASRQ
proteinas/Rv0663:MPQPRTHLPIPSAARTGLITYDAKDPDSTYPPIEQLRPPAGAPNVLLILLDDVGFGASSA
proteinas/Rv0687:VALTNTLAIELGEFGIRVNSIHPYSVDTPMIEPEAMIQTFAKHPGYVHSFPPMPLQPKGF
proteinas/Rv0706:PAKDQRSAKSSRARRTEASKAASKVGATAPAKKAAAKAPAKKAPASSGVKKTPAKKAPAK
proteinas/Rv0713:RVEVTGSLEGWDISAVRVGESSQTSDRPDNVIITLKRAKGPLVFDLGICLVLITLPTLAL
proteinas/Rv0753c:MTTQISHFIDGQRTAGQSTRSADVFDPNTGQIQAKVPMAGKSDIDAAVASAVEAQKGWAA
proteinas/Rv0754:IDTAVPGPGLTALGQQQAQAIANALAAKGPYAGIFDSQLIRTQQTAAPLANLLGMAPQVL
proteinas/Rv0768:VLKPAPDTPWCAAALGEIIVEHTDFPPGVVNIVTSSSHALGALLAKDPRVDMISFTGSTA
proteinas/Rv0809:MTDLAKGPGKDPGSRGITYASAGVDIEAGDRAIDLFKPLASKATRPEVRGGLGGFAGLFT
proteinas/Rv0817c:PFIPQAMREHYAELEIKAFAVEHAGSGTATLEATMHSIDLSYASWLIRPDAKLPVGELES
proteinas/Rv0861c:VTMTDSERMMYATAEPEERYRICSTVHTKIAVVKSILAKHPDEQTLVIGAYLDQLDELGA
proteinas/Rv0892:LYQYSFAKNPNWTQMFSRGGEIQDYLRGIAERYGLRHRIRFGATVVSARFDDGRWVLRTD
proteinas/Rv0896:KRFFDGFPRNAHPMPVLSSVVNALSAYYQDALDPMDNGQVELSTIRLLAKLPTIAAYAYK
proteinas/Rv0931c:RVPPALDQVIAKGMAKNPAERFMSAGDLAIAAHDALTTSEQHQATTILRRGDNATLLATP
proteinas/Rv0941c:MVAVSTAAKSPTALAIAVRTQDSVVILTADGALDSSSSALLRDSLTRATLEQPSAVIVNV
proteinas/Rv0949:MSVHATDAKPPGPSPADQLLDGLNPQQRQAVVHEGSPLLIVAGAGSGKTAVLTRRIAYLM
proteinas/Rv0951:GGMEIEEVAATKPERLAKVPVNAVKGVDLDFARSIAEQGHLPAEVLDTAAVTIAKLWELF
proteinas/Rv0983:GSGIILSAEGLILTNNHVIAAAAKPPLGSPPPKTTVTFSDGRTAPFTVVGADPTSDIAVV
proteinas/Rv1024:MPEAKRPESKRRSPASRPGKAGDSVRGGRATKPSAKPSTPAPHASRKTTRTPHEHIVEPI
proteinas/Rv1025:SLAKGPGLNPFGDEALALLAAEPRTAATLVAGQWR
proteinas/Rv1029:MSGTSWLQFAALIAVLLLTAPALGGYLAKIYGDEAKKPGDRVFGPIERVIYQVCRVDPGS
```

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# grep "AKA*P" proteinas/*
proteinas/Rv0006:LIELLDIDEIQAQAILDMQLRRLAALERQRIIDDLAKIEAEIADLEDILAKPERQRGIVR
proteinas/Rv0033:TVGDVYTSVAVWFPETAKPAPLGKGTA
proteinas/Rv0038:ETAVYNVLPQWAKLAAKPKTMFIGGPVKRDAALCLAVLRVGADPEGVPGLRHVAGRLVMV
proteinas/Rv0048c:TSDPGAKPDGIAPVVLTPPRQLHSLGGLTGLLEQTRKRFGDTMGYRLVIYPEYASLDRVD
proteinas/Rv0090:DLPVLRAAGFKVDQMTVIHALEKALAAKPSTLALITGMLAAYAVLQAVEGVGLWLLKRWG
proteinas/Rv0095c:RITKPEAGRRSAEAKP
proteinas/Rv0102:FVSVAEPVGFFAASLAGALCLGALIHVVMTAKPEPDGLIDAAAFRIHLLAERVSGLWLGL
proteinas/Rv0103c:EAKPVRAYPAASVVGGTVVMDGRLVIEATAVGADTQFAAMVRLVEQAQTQKARAQRLADH
proteinas/Rv0130:GTVQATVSTTVEVEGSAKPACVAESIVRYVA
proteinas/Rv0156:LVLQVILFVAVVFGTLNVIGGFIVTDRMLGMFKAKKPAVPAKPDRDEALR
proteinas/Rv0165c:MIKHDVVWVTLWPERPNNKPPPSPRQVPGNPGPTLKVLASHVNAPLSAKPRSQLPLRRAQ
proteinas/Rv0171:MRTLEPPNRMRIGLMGIVVALLVVAVGQSFTSVPMLFAKPSYYGQFTDSGGLHKGDRVRI
proteinas/Rv0189c:MPQTTDEAASVSTVADIKPRSRDVTDGLEKAAARGMLRAVGMDDEDFAKPQIGVASSWNE
proteinas/Rv0192:AGQDPTSFVGPPPFRPPTFNPVDGAMVGVAKPIVINFAVPIADRAMAESAIHISSIPPVP
proteinas/Rv0199:ATSVSENAGAKPQTVHWNLRLDVSDVDGKLMISRLESIR
proteinas/Rv0207c:GFAVFAKPKVDEDSDVDRDMLAHIDERYREGLAALVVASADGQAFRQPLEAVARSGTPVQ
proteinas/Rv0242c:VVGGTPEAAASTNERIAQRALEGFTRSLGKELRRGATTALVYLSPDAKPAATGLESTMRF
proteinas/Rv0269c:LLMLAEELGPPQKAQSAKPLIEIARAKTRAEAMAALDIWRDRYPGAAALLRPADVLVDGM
proteinas/Rv0291:GLNATEVVRRLTATAHRGARESSNIVGAGNLDAVAALTWQLPAEPGGGAAPAKPVADPPV
proteinas/Rv0338c:CQSQCPAWNTGKPLSPKLVIMDLRDHWMAKAPYILGQKDASAGGEAGHQEHHHVPESGFG
proteinas/Rv0338c:EAKPQPEPAAPPKPQTDGDPAAPAAPVKGLGIARGARPPGKR
proteinas/Rv0357c:QRDLCRAKPVYEELPGWWEDISGAREFDDLPAKARDYVLRLEQLAGAPVSCIGVGPGREQ
proteinas/Rv0363c:PADAKPFDFVFHGGSGSLKSEIEEALRYGVVKMNVDTDTQYAFTRPIAGHMFTNYDGVLK
proteinas/Rv0381c:VLIDVDASPTDPHAPHAKPEDIRFGLYGALAHPMESAALGSCGDAMAHVRDVVSPLSAPA
proteinas/Rv0418:GGPNGVPVMADRTRHLIAKP
proteinas/Rv0419:DASGNPETGEVGINEETLSTLMELMGKIFSPKNPPTLSYQPAGCPDAKPSPPAAYCPATN
proteinas/Rv0425c:AAGLLSGYLLARKVVDAQAPRPAPAHEWHAMSVEQVRKALPSPDEQAPAKAPPSPYPARA
proteinas/Rv0479c:FVTSSVVTHPADGTVELKGLLNNITAKPIVAGKGLELQIINFNTLGFSLPKETVQSTLNE
proteinas/Rv0483:INLSTENAEQYYRSAVYGDPVEVTGSSIQLSYADGDIWDWAVDWDTWVSMSALPPPAAKP
proteinas/Rv0533c:ELLTTGAAKPGDLALLIGYGAGLSYAAQVVRMPKG
proteinas/Rv0540:MSCLPVSVLVVAKAPEPGRVKTRLAAAIGDKVAADIAAAALLDTLDAVAAAPVTARAVAL
proteinas/Rv0581:MDKTTVYLPDELKAAVKRAARQRGVSEAQVIRESIRAAVGGAKPPPRGGLYAGSEPIARR
proteinas/Rv0606:TAKPSLRVLRKRWNTVKDEVCVNAETGTVWWPECSKEAYADGIAGAVDAYWNWQQRRAGK
proteinas/Rv0610c:DGREYSGLELVRDIAPLVGGLSFDPDEPWGSAFRPGALPELQNWARTVELEDAVAKPGPG
proteinas/Rv0629c:LHRLLGAKPGARFRQDRQNRLPHNVIVVDETSMVSLTLMARLAEAVRPGARLILVGDADQ
proteinas/Rv0631c:LDALDQTTSAPVRERILVTHPLQPFDRKNVTPGALLGAKPFTFDPAALAAAQAAAGKRCP
proteinas/Rv0677c:SGSGSYVNINYLDLDAKPQRIDGAALPWSLTLKTTAPSAAPNILAQGDGTSITCRITVDG
proteinas/Rv0706:PAKDQRSAKSSRARRTEASKAASKVGATAPAKKAAAKAPAKKAPASSGVKKTPAKKAPAK
proteinas/Rv0710:MMAEAKTGAKAAPRVAKAAKAAPKKAAPNDAEAIGAANAANVKGPKHTPRTPKPRGRRKT
proteinas/Rv0725c:PAGTVVYEIDQPQVIDFKTTTLAGIGAKPTAIRRTVYIDLRADWPAALQAAGLDSTAPTA
proteinas/Rv0743c:KADHVDVAIGEMSDFHRSNGVYAEGVHIDTAILPNGWRDRLVSWTVESSRPAKPRFLEPH
proteinas/Rv0770:AEADIISITVFDDAQVSSVITADNGLATHAKPGTIVAIHSTIADTTAVDLAEKLKPQGIH
proteinas/Rv0776c:RAIEVYPHPATVALFRLPRALKYKAKPGRSVDLLKSELLRLMDGVEGLAQAGVRMQVAGQ
```

EX9:

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# grep ">" proteinas/*
proteinas/Rv0001:>Rv0001
proteinas/Rv0002:>Rv0002
proteinas/Rv0003:>Rv0003
proteinas/Rv0004:>Rv0004
proteinas/Rv0005:>Rv0005
proteinas/Rv0006:>Rv0006
proteinas/Rv0007:>Rv0007
proteinas/Rv0008c:>Rv0008c
proteinas/Rv0009:>Rv0009
proteinas/Rv0010c:>Rv0010c
proteinas/Rv0011c:>Rv0011c
proteinas/Rv0012:>Rv0012
proteinas/Rv0013:>Rv0013
proteinas/Rv0014c:>Rv0014c
proteinas/Rv0015c:>Rv0015c
proteinas/Rv0016c:>Rv0016c
proteinas/Rv0017c:>Rv0017c
```

```
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# sed -i "s/>\(Rv[0-9]\+c\?\)/>Mt_\1/g" proteinas/*
^C
root@DESKTOP-B2C8JDM:/mnt/c/Users/User/sample# grep ">" proteinas/*
proteinas/Rv0001:>Mt_Rv0001
proteinas/Rv0002:>Mt_Rv0002
proteinas/Rv0003:>Mt_Rv0003
proteinas/Rv0004:>Mt_Rv0004
proteinas/Rv0005:>Mt_Rv0005
proteinas/Rv0006:>Mt_Rv0006
proteinas/Rv0007:>Mt_Rv0007
proteinas/Rv0008c:>Mt_Rv0008c
proteinas/Rv0009:>Mt_Rv0009
proteinas/Rv0010c:>Mt_Rv0010c
proteinas/Rv0011c:>Mt_Rv0011c
proteinas/Rv0012:>Mt_Rv0012
proteinas/Rv0013:>Mt_Rv0013
proteinas/Rv0014c:>Mt_Rv0014c
proteinas/Rv0015c:>Mt_Rv0015c
proteinas/Rv0016c:>Mt_Rv0016c
proteinas/Rv0017c:>Mt_Rv0017c
proteinas/Rv0018c:>Mt_Rv0018c
proteinas/Rv0019c:>Mt_Rv0019c
proteinas/Rv0020c:>Mt_Rv0020c
proteinas/Rv0021c:>Mt_Rv0021c
proteinas/Rv0022c:>Mt_Rv0022c
proteinas/Rv0023:>Mt_Rv0023
proteinas/Rv0024:>Mt_Rv0024
proteinas/Rv0025:>Mt_Rv0025
proteinas/Rv0026:>Mt_Rv0026
proteinas/Rv0027:>Mt_Rv0027
proteinas/Rv0028:>Mt_Rv0028
proteinas/Rv0029:>Mt_Rv0029
```