

samtools

<https://github.com/samtools/samtools/releases/download/1.10/samtools-1.10.tar.bz2>

```
tar -xvf samtools-1.10.tar.bz2
cd samtools-1.10/
./configure --prefix=/home/lipzh21/test/install/samtools --without-curses
make -j8 && make install
```

gmap

<http://research-pub.gene.com/gmap/src/gmap-gsnap-2021-07-23.tar.gz>

```
tar -xvf gmap-gsnap-2021-07-23.tar.gz
cd gmap-gsnap-2021-07-23/
sed -i 's/__asm__ ("cpuid"/\\\\"__asm__ ("cpuid"/g' src/cpuid.c
sed -i 's/__asm__ ("xgetbv"/\\\\"__asm__ ("xgetbv"/g' src/cpuid.c
./configure --prefix=/home/lipzh21/test/install/gmap
make -j8 && make install
```

minimap2

<https://github.com/lh3/minimap2/archive/refs/tags/v2.22.tar.gz>

```
tar -xvf minimap2-2.22.tar.gz
cd minimap2-2.22/
sed -i '1 i CC= gcc' Makefile
make arm_neon=1 aarch64=1
mkdir -p /home/lipzh21/test/install/minimap2
cp minimap2 /home/lipzh21/test/install/minimap2
```

blat

<https://codeload.github.com/djhshih/blat/tar.gz/v35.1>

```
tar -xvf blat-35.1.tar.gz
cd blat-35.1
export MACHTYPE=aarch64
make -j8
mkdir -p /home/lipzh21/test/install/blat
cp -r bin /home/lipzh21/test/install/blat
```

pblat

<https://github.com/icebert/pblat/archive/refs/tags/2.5.tar.gz>

```

tar -xvf pblat-2.5.tar.gz
cd pblat-2.5/
sed -i 's/x86_64/aarch64/g' Makefile
sed -i 's/CFLAGS=-O -Wall/CFLAGS=-O -Wall -L.\usr\lib64 /g' Makefile
sed -i 's/HG_INC=-I.\inc -I.\htslib/HG_INC=-I.\inc -I.\htslib -I.\usr\include/g' Makefile
sed -i 's/\&\& args != NULL//g' lib/htmshe11.c
yumdownloader openssl-devel
yumdownloader krb5-devel
yumdownloader libcom_err-devel
yumdownloader openssl-libs
rpm2cpio openssl-devel-1.0.2k-25.el7_9.aarch64.rpm | cpio -ivdm
rpm2cpio krb5-devel-1.15.1-54.el7_9.aarch64.rpm | cpio -ivdm
rpm2cpio libcom_err-devel-1.42.9-19.el7.aarch64.rpm | cpio -ivdm
rpm2cpio openssl-libs-1.0.2k-25.el7_9.aarch64.rpm | cpio -ivdm
make -j8
mkdir -p /home/lipzh21/test/install/pblat
cp pblat /home/lipzh21/test/install/pblat

```

URI

<https://cpan.metacpan.org/authors/id/G/GA/GAAS/URI-1.35.tar.gz>

```

tar -xvf URI-1.35.tar.gz
cd URI-1.35/
perl Makefile.PL PREFIX=/home/lipzh21/test/perl5
LIB=/home/lipzh21/test/usr/lib64/perl5
make && make install
cd ..
yumdownloader perl-DBD-SQLite
yumdownloader perl-DBI
rpm2cpio perl-DBD-SQLite-1.39-3.el7.aarch64.rpm | cpio -ivdm
rpm2cpio perl-DBI-1.627-4.el7.aarch64.rpm | cpio -ivdm
export
PERL5LIB=/home/lipzh21/test/usr/lib64/perl5:/home/lipzh21/test/usr/lib64/perl5/
URI:/home/lipzh21/test/usr/lib64/perl5/vendor_perl:/home/lipzh21/test/usr/lib6
4/perl5/vendor_perl/auto:/home/lipzh21/test/usr/lib64/perl5/vendor_perl/DBD:/h
ome/lipzh21/test/usr/lib64/perl5/vendor_perl/DBI:/home/lipzh21/test/usr/lib64/p
erl5/vendor_perl/Bundle

```

pasa

<https://github.com/PASApipeline/PASApipeline/archive/refs/tags/pasa-v2.5.2.tar.gz>

```
tar -xvf pasa-v2.5.2.tar.gz
cd PASApipeline-pasa-v2.5.2/
make -j8
cd sample_data/
cp mysql.confs/alignAssembly.config ./
sed -i
's/DATABASE=sample_mydb_pasa/DATABASE=\/home\/lipzh21\/test\/database.sqlite/g'
alignAssembly.config
export
PATH=/home/lipzh21/test/install/pblat:/home/lipzh21/test/install/blat/bin:/home/
lipzh21/test/install/minimap2:/home/lipzh21/test/install:/home/lipzh21/test/ins
tall/samtools/bin:/home/lipzh21/test/install/gmap/bin:/home/lipzh21/test/PASApip
eline-pasa-v2.5.2:/home/lipzh21/test/PASApipeline-pasa-v2.5.2/bin:$PATH
gunzip -d genome_sample.fasta.gz
{ time Launch_PASA_pipeline.pl -c alignAssembly.config -C -R -g
genome_sample.fasta -t all_transcripts.fasta.clean -T -u all_transcripts.fasta -
f FL_accs.txt --ALIGNERS blat,gmap --CPU 96; } 2>&1 |tee PASA.log
```

备注

此安装过程基准目录在/home/lipzh21/test/

实际安装请将上所有涉及基准目录的内容改为实际目录