

# Reads trimming & Quality control & Reads alignment

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## Abstract

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## Protocol

### fastQC of raw reads

#### Step 1.

```
/home/CAM/qlin/RCP1_OX_Transcriptome/fastQC/raw
```

### trim reads by trimmomatic

#### Step 2.

```
/home/CAM/qlin/RCP1_OX_Transcriptome/trimmomatic
```

### fastQC of trimmed reads

#### Step 3.

```
/home/CAM/qlin/RCP1_OX_Transcriptome/fastQC/t1
```

```
/home/CAM/qlin/RCP1_OX_Transcriptome/fastQC/t3
```

### align trimmed reads to genome assembly

#### Step 4.

```
/home/CAM/qlin/RCP1_OX_Transcriptome/STAR/t1
```

```
/home/CAM/qlin/RCP1_OX_Transcriptome/STAR/t2
```

```
/home/CAM/qlin/RCP1_OX_Transcriptome/STAR/t3
```

```
/home/CAM/qlin/RCP1_OX_Transcriptome/STAR/t4
```

```
/home/CAM/qlin/RCP1_OX_Transcriptome/STAR/t5
```

### count genome coverage

#### Step 5.

/home/CAM/qlin/RCP1\_OX\_Transcriptome/STAR/t1/view\*  
/home/CAM/qlin/RCP1\_OX\_Transcriptome/STAR/t1/depth\*  
/home/CAM/qlin/RCP1\_OX\_Transcriptome/STAR/t2/view\*  
/home/CAM/qlin/RCP1\_OX\_Transcriptome/STAR/t2/depth\*  
/home/CAM/qlin/RCP1\_OX\_Transcriptome/STAR/t3/view\*  
/home/CAM/qlin/RCP1\_OX\_Transcriptome/STAR/t3/depth\*  
/home/CAM/qlin/RCP1\_OX\_Transcriptome/STAR/t4/view\*  
/home/CAM/qlin/RCP1\_OX\_Transcriptome/STAR/t4/depth\*  
/home/CAM/qlin/RCP1\_OX\_Transcriptome/STAR/t5/view\*  
/home/CAM/qlin/RCP1\_OX\_Transcriptome/STAR/t5/depth\*

choose the best trimmed reads and align them to genome assembly by HISAT2

**Step 6.**

/home/CAM/qlin/RCP1\_OX\_Transcriptome/HISAT2/t6

Verify the genome coverage

**Step 7.**

/home/CAM/qlin/RCP1\_OX\_Transcriptome/HISAT2/t6/view\*  
/home/CAM/qlin/RCP1\_OX\_Transcriptome/HISAT2/t6/depth\*