A Big Earth Data Platform for Three Poles

**Transcriptome data of plain population before entering Tibet (2019)**

1、Description

People in the plain often have altitude reaction after entering Tibet. In order to deeply analyze the change pattern of genomic expression profile in the process of altitude response and altitude acclimation. Based on the mRNA transcriptome sequencing method, we have obtained the transcriptome sequencing data of 46 individuals before entering Tibet (collection place: Chongqing).
We first collected the peripheral blood samples of 46 plain Han individuals, treated the peripheral blood with red blood cell lysate (Tiangen), centrifuged at 4000 rpm for 10 min, separated and extracted white blood cells, and extracted the total RNA of each sample by Trizol method. Then 46 libraries were constructed by poly (a) capture method. Poly (a) + mRNA library was isolated from 1 g total RNA of each sample with oligo (DT) beads. The construction of RNA SEQ library was carried out according to the preparation scheme of truseq RNA library. The 46 RNA libraries were double ended sequenced using novaseq platform. The sequencing results were 150 BP reads fastq files, and the data volume of each sample exceeded 6.0 GBP.
The transcriptome data of plain people before entering Tibet can be used as the baseline data after entering Tibet. By comparing and analyzing the transcriptome data of plain people before and after entering Tibet, screening the significantly differentially expressed genes before and after entering Tibet, and annotating the biological functions of differentially expressed genes, we can deeply analyze the gene expression change mode and function regulation network mechanism in the process of altitude reaction and altitude acclimatization.

2、Keywords

Theme：Biological Resources,Settlement
Discipline：Human-nature Relationship
Places：Chongqing
Time：2019

3、Data details

1.Scale：None

2.Projection：

3.Filesize：6144.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：29.58 | - |
| west：106.53 | - | east：106.53 |
| - | south：29.58 | - |

5、Time frame:2019-06-30 16:00:00+00:00--2022-02-15 16:00:00+00:00

6、Reference method

References to data:

KONG Qingpeng. Transcriptome data of plain population before entering Tibet (2019). A Big Earth Data Platform for Three Poles, doi:10.11888/HumanNat.tpdc.2724982022

References to articles:

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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