A Big Earth Data Platform for Three Poles

**RNA-seq data of human umbilical vein endothelial cell samples**

1、Description

1) Data content: this data is the placenta umbilical cord endothelial cells (HUVEC) transcriptome data of high altitude Tibetan and lowland Han population generated during the implementation of the project, including the RNA-seq data of 3 high altitude Tibetan HUVEC and 3 lowland Han placenta HUVEC. Each RNA-seq data is 6G sequencing depth, which can be used to study the effect of high altitude Tibetan population and lowland Han population for gene expression patterns at hypoxic environment.
2) Data source and processing method: own data, the pair end 150bp sequencing method using Illumina x-ten sequencing platform.
3) Data quality: 6G data depth, q30 > 90%.
4) Results and prospects of data application: the data will be used to validate the gene expression pattern of high altitude hypoxia adaptation gene to hypoxia environment at the cell level.

2、Keywords

Theme：Genetic diversity,Population,High altitude adaptation,Tibetan ethnic group
Discipline：Human-nature Relationship
Places：Qinghai-Tibetan Plateau
Time：present

3、Data details

1.Scale：None

2.Projection：

3.Filesize：24000.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：29.97 | - |
| west：0.0 | - | east：91.11 |
| - | south：0.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

QI Xuebin. RNA-seq data of human umbilical vein endothelial cell samples. A Big Earth Data Platform for Three Poles, doi:10.11888/Ecolo.tpdc.2703752020

References to articles:

Peng, Y., Cui, C., He, Y., Ouzhuluobu, Zhang, H., Yang, D., Zhang, Q., Bianbazhuoma, Yang, L., He, Y., Xiang, K., Zhang, X., Bhandari, S., Shi, P., Yangla, Dejiquzong, Baimakangzhuo, Duojizhuoma, Pan, Y., Cirenyangji, Baimayangji, Gonggalanzi, Bai, C., Bianba, Basang, Ciwangsangbu, Xu, S., Chen, H., Liu, S., Wu, T., Qi, X. & Su, B. (2017). Down-regulation of EPAS1 transcription and genetic adaptation of Tibetans to high-altitude hypoxia. Mol Biol Evol 34, 818-830.

7、Supporting project information

Pan-Third Pole Environment Study for a Green Silk Road-A CAS Strategic Priority A Program

8、Data resource provider

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