A Big Earth Data Platform for Three Poles

**Y chromosome SNP and STR data of Tibetans from Shigatse (2016-2019)**

1、Description

To investigate the paternal genetic structure of Tibetans from Shigatse, 434 male samples were collected from Shigatse, Tibet. Firstly, SNP genotyping was performed to allocate samples into haplogroups. To further evaluate the genetic diversity of the major Y-chromosomal haplogroup in Tibetan populations from Lhasa, eight commonly used Y-chromosomal STR (short tandem repeat) loci (DYS19, DYS388, DYS389I, DYS389II, DYS390, DYS391, DYS392, and DYS393) were genotyped using fluorescence-labeled primers with an ABI 3130XL Genetic Analyzer (Applied Biosystems, USA). The results indicated that haplogroup O-M175 displayed highest frequency in Shigatse Tibetans (47.00%, the majority of its sublineages were O2-M122), followed by haplogroups D-M174 (40.78%, with most of the samples belonging to D-P47 (20.97%) and D-N1(16.82%)). Another relatively rare lineages in Shigatse Tibetans were C-M217 (1.84%), R1a1- M17 (1.61%), N1-LLY22G (5.76%), Q-M242 (0.69%). In combination with the data from Lhasa that released in 2019, our Y chromosome data of Tibetans from different locations on the Tibetan Plateau will be very helpful to understanding the paternal genetic structure of Tibetans. Moreover, the genetic history of Tibetans can also be dissected by phylogeographic and coalescent analyses.

2、Keywords

Theme：Grassland
Discipline：Terrestrial Surface
Places：Tibetans, Y chromosome, single nucleotide polymorphism (SNP), single nucleotide polymorphism (SNP), Shigatse
Time：2016-2019

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.06MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：29.59 | - |
| west：88.35 | - | east：89.38 |
| - | south：28.99 | - |

5、Time frame:2016-05-04 16:00:00+00:00--2019-08-02 03:59:59+00:00

6、Reference method

References to data:

KONG Qingpeng, QI Xuebin. Y chromosome SNP and STR data of Tibetans from Shigatse (2016-2019). A Big Earth Data Platform for Three Poles, doi:10.1093/molbev/mst0932020

References to articles:

Qi, X.B., Cui, C.Y., Peng, Y., Zhang, X.M., Yang, Z.H., Zhong, H., Zhang, H., Xiang, K., Cao, X.Y., Wang, Y., et al. (2013). Genetic Evidence of Paleolithic Colonization and Neolithic Expansion of Modern Humans on the Tibetan Plateau, Molecular Biology and Evolution, Volume 30, Issue 8, August 2013, Pages 1761–1778, https://doi.org/10.1093/molbev/mst093.

7、Supporting project information

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

8、Data resource provider

name: KONG Qingpeng
unit: Kunming Institute of Zoology, Chinese Academy of Sciences
email: kongqp@mail.kiz.ac.cn

name: QI Xuebin
unit:
email: qixuebin@mail.kiz.ac.cn