Supplementary Information

Supplementary Methods Description of the 27 archeological sites

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Supplementary References

Supplementary Methods

Criteria used to select libraries for analysis

First, we required libraries to exhibit a consistent damage profile at the last position of each fragment, as expected of ancient DNA [1]. We restricted SS and DS library analyses to those libraries with more than 10% cytosine-to-thymine substitutions in the last nucleotide. For DS.half libraries, we restricted the rate to \geq 3% [2]. Otherwise, we considered the library to be contaminated. Second, we compared our mtDNA fragments with 311 worldwide mtDNA sequences to test for the contamination from present-day humans [3]. Using the ContamMix contamination estimator [4], we calculated the fraction of fragments that matched the present-day mtDNA rather than the consensus sequence. If the point estimate was >5%, or if the upper bound of the 95% confidence interval (CI) was >15%, we treated the library as contaminated [5].

When a sample has several libraries (e.g. Sample ID: CSP142, C486, C514, C518, C205, CSP144; Table S1), the library with the least contamination rate was used for analysis, as shown by the narrowest confidence interval. In this way, we excluded six samples (Sample ID: C2595, C2596, C2597, C2598, CSP049, C191). For C2597 (7.7% for DS) there was a low C-to-T rate, and for C2595 (20.1%), C2597 (23.7%), C2598 (6.7%), CSP049 (9.3%) and C191 (10.9%) there were high contamination rates. For C2596, the consensus sequence consisted of too many missing positions ("N") for a haplogroup to be assigned.

Thus, from a total of 73 samples, the samples that could be used for the study were 67, among which the contamination rates of 65 samples were within acceptable limits (point estimate <3.5% and upper bound of 95% CI <6.9%). Two samples (L0551_d and D1958_d) have borderline contamination rates (point estimate of 5.1–7.5% and upper bound of 95% CI 5.9–8.7%), so we only used their damaged fragments for analysis, as these were likely to be ancient DNA.

Description of the 27 archaeological sites

The 20 archaeological sites in the provinces of Eastern Qinghai, Gansu, and Sichuan classified as low-altitude Tibetan Plateau (LTP)

The **Zongri** site[6] is located in the Gonghe Basin, northwest of the Tongde city, in the Qinghai province. It was discovered in 1982 and excavated between 1994 and 1995. The dating of individuals from this site is approximately 5,200 to 3,900 years old and represents the oldest site included in this study. The Liuwan site is southeast of the Qinghai Lake and dates to about 4,000 years. Other sites southeast of Qinghai Lake, include the **Hedong** site (4,000 years old), the **Hupo** site (4,000 BP) and the Shangluzhuang site (4,000 years old). Furthermore, we obtained individuals from the Wenpuju site (850 years old), the Lierbao site (380 years old), and the Dazhuang site (4,400 years old). The northeastern province of Qinghai includes the Jinchankou site (3,800 years old) [7] in the Jiading town of Huzhu city and the Sanheyi site (4,000 years old) in the Sanhe town of Haidong city. The Lajigai site is in the Hualong city in the northeastern province of Qinghai and is 3,200 years old [8]. The Hualongqunke site, in the Hualong city, dates to 2,500 years old. The Wuba site [9] is in Minle city in the northwestern province of Gansu and is 3,800 years old. The Xiahaishi site [10] is in the Haishiwan town of Lanzhou city in the Gansu province and is 3,800 years old. The Qijiaping site [11] was found by Anderson in the 1920s in the Guanghe city of Gansu province, where archaeological materials show evidence of communication between East and West China and dates to 3,500 years old [12]. In the nearby Lintan city, in the Gansu province, there is a site called Mogou [11] that dates to 3,400 years old [8, 13]. The Huoshaogou site was excavated in 1976 in the Yumen city of the northwestern Gansu province [14] and dates to 3,400 years old. Other sites include the Guidehexi site that dates to 2,850 years old in northeastern Qinghai province and the Hejiatai site (4,800 years old) in Gansu province. The Yingpanshan site is in the Maoxian city of Sichuan province, southeast of the Min River [15] and is 3,000 years old.

The seven archeological sites in Tibet and the province of Western Qinghai classified as high-altitude Tibetan Plateau (HTP)

Sarcophagi were found at the **Pukagongma** site in the Western Qinghai province and dated to 2,800 years old. In **Yushu**, one individual dates to 500 years old. The **Xiaoenda** site is in the Chamdo prefecture of Tibet [16] and our individuals were about 2,600 years old. The **Butaxiongqu** tombs were found in the Nagqu Prefecture of Tibet [17] and an individual dates to 2,500 years old. We have one individual from the **Redilong** site (2,800 years old) and the **Chaxiutang** site (1,000 years old) in Tibet, as well as from the **Gelintang** site (100 years old) in Western Tibet.

Fig. S1. Location of the 27 archeological sites across Tibet, Qinghai, Gansu, Sichuan (enlarged area is the Qinghai Lake region) and their approximate age predominantly based on the range of radiocarbon dates from ancient skeletons recovered at those sites. Ancient Nepal data from Jeong et al. [18] are also included on this map



Fig. S2. Pairwise genetic distance Φ ST of populations (*P*-value obtained after 10,000 permutations)

Austronesian	0.04	0.06	0.17	0.08	0.05	0.09	0.14	0.07	0.18	0.18	0.13	0.03	0.02	0.06	0.22	0.07	0.02	0.05	0.12	0.06	0.19			
Vietnam	0.29	0.18	0.04	0.12	0.24	0.13	0.03	0.1	0.02	0.06	0.15	0.15	0.21	0.11	0.1	0.15	0.3	0.13	0.13	0.14		0.19		
Thailand	0.08	0.01	0.13	0.06	0.02	0.08	0.09	0.04	0.14	0.14	0.13	0.05	0.04	0.01	0.17	0.02	0.11	0.01	0.11		0.14	0.06		
Laos	0.19	0.11	0.11	0.01	0.12	0.06	0.09	0.07	0.13	0.09	0.08	0.13	0.14	0.08	0.16	0.12	0.19	0.09		0.11	0.13	0.12		
Cambodia	0.08	0	0.12	0.05	0	0.07	0.09	0.04	0.13	0.14	0.12	0.05	0.05	0.02	0.16	0.03	0.1		0.09	0.01	0.13	0.05		
Myanmar	0.04	0.13	0.27	0.16	0.09	0.18	0.22	0.14	0.28	0.28	0.21	0.05	0.04	0.11	0.32	0.11		0.1	0.19	0.11	0.3	0.02		
Pakistan	0.08	0.03	0.13	0.07	0.04	0.08	0.1	0.05	0.14	0.15	0.14	0.06	0.05	0.02	0.18		0.11	0.03	0.12	0.02	0.15	0.07	P_val	110
S.India	0.31	0.22	0.12	0.16	0.27	0.17	0.09	0.13	0.1	0.11	0.17	0.18	0.23	0.14		0.18	0.32	0.16	0.16	0.17	0.1	0.22	1 - vai	1
W.India	0.09	0.02	0.09	0.03	0.04	0.05	0.06	0.01	0.1	0.1	0.1	0.04	0.05		0.14	0.02	0.11	0.02	0.08	0.01	0.11	0.06		
E.India	0.01	0.06	0.19	0.1	0.06	0.12	0.14	0.07	0.2	0.2	0.16	0.02		0.05	0.23	0.05	0.04	0.05	0.14	0.04	0.21	0.02		
N.India	0.03	0.04	0.13	0.08	0.06	0.1	0.1	0.06	0.14	0.16	0.14		0.02	0.04	0.18	0.06	0.05	0.05	0.13	0.05	0.15	0.03		0.05
NE.India	0.21	0.14	0.14	0.08	0.16	0.1	0.11	0.08	0.15	0.11		0.14	0.16	0.1	0.17	0.14	0.21	0.12	0.08	0.13	0.15	0.13		0.00
Nepal	0.27	0.16	0.07	0.07	0.22	0.08	0.05	0.06	0.07		0.11	0.16	0.2	0.1	0.11	0.15	0.28	0.14	0.09	0.14	0.06	0.18		
China.Tibet	0.27	0.16	0.03	0.11	0.22	0.12	0.04	0.09		0.07	0.15	0.14	0.2	0.1	0.1	0.14	0.28	0.13	0.13	0.14	0.02	0.18		
HTP	0.12	0.04	0.08	0.02	0.08	0.03	0.05		0.09	0.06	0.08	0.06	0.07	0.01	0.13	0.05	0.14	0.04	0.07	0.04	0.1	0.07		0
LTP	0.2	0.08	0.03	0.06	0.15	0.07		0.05	0.04	0.05	0.11	0.1	0.14	0.06	0.09	0.1	0.22	0.09	0.09	0.09	0.03	0.14		
China.Xinjiang	0.18	0.09	0.11	0.02	0.11		0.07	0.03	0.12	0.08	0.1	0.1	0.12	0.05	0.17	0.08	0.18	0.07	0.06	0.08	0.13	0.09		
S.China	0.09	0.01	0.2	0.08		0.11	0.15	0.08	0.22	0.22	0.16	0.06	0.06	0.04	0.27	0.04	0.09	0	0.12	0.02	0.24	0.05		
N.China	0.16	0.05	0.1		0.08	0.02	0.06	0.02	0.11	0.07	0.08	0.08	0.1	0.03	0.16	0.07	0.16	0.05	0.01	0.06	0.12	0.08		
Tajikistan	0.26	0.15		0.1	0.2	0.11	0.03	0.08	0.03	0.07	0.14	0.13	0.19	0.09	0.12	0.13	0.27	0.12	0.11	0.13	0.04	0.17		
Russia	0.1		0.15	0.05	0.01	0.09	0.08	0.04	0.16	0.16	0.14	0.04	0.06	0.02	0.22	0.03	0.13	0	0.11	0.01	0.18	0.06		
Altai		0.1	0.26	0.16	0.09	0.18	0.2	0.12	0.27	0.27	0.21	0.03	0.01	0.09	0.31	0.08	0.04	0.08	0.19	0.08	0.29	0.04		
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Fig. S3. Network analysis of 21 plateau-associated haplogroup lineages (hatch marks denote positional differences in the complete mtDNA sequence)







Haplogroup D4b2b



Haplogroup D4j1b





Haplogroup F1c1a1a



Haplogroup F1d



Haplogroup F1g



Haplogroup G2a1



Haplogroup G2b2a











Haplogroup R+16189



Table S1

Library	Sample ID	Alternate name	Site	Province	Lat	Long	Altitude	Library	Contamina	tion 95% CI	Contamination	5' C > T %	C14 Lab no.	Uncalibrated C14 age	Calibrated 95	5% CI (BP)	Mean Age	IRMS	IRMS	CN	Haplog	roup	Library
D1952	C050	ZongriM1	Zongri	Oinghai	35.3	100.4	(masi) 2953	SS	2.2	1.5	1.8	32	BA171677	4220±25	4850	4650	(Cal BP) 4750	anse	015N		D4i1b	1375	pass
D1953	C051	ZongriM251	Zongri	Qinghai	35.3	100.4	2953	SS	3	2	2.5	30.3	BA171678	3765±20	4230	4011	4121				D4	650	pass
L0642	CSP059		Zongri	Qinghai	35.3	100.4	2953	SS	6.7	0.1	1.2	20.5									D4j3	14	pass
L1149_d L3254	C204 C202	ZongriM297	Zongri	Oinghai	35.3	100.4	2953	DS.IIan	1	0.5	0.7	26.5	BA170709	4405±30	5213	4866	5040				D4i	1346	pass
L3255	C056	ZongriM299	Zongri	Qinghai	35.3	100.4	2953	DS	0.4	0.1	0.2	18.5	BA180101	4225±30	4925	4715	4820	-9.8	8.93	3.2	D4i	1382	pass
L3256	C208	ZongriM273	Zongri	Qinghai	35.3	100.4	2953	DS	1.1	0.6	0.9	20.8	BA180103	4200±25	4911	4712	4812	-10.8	9.61	3.2	G2a1	1352	pass
R2089 R2111	CSP046 CSP047	ZongriM27 ZongriM75	Zongri	Qinghai Qinghai	35.3	100.4	2953	DS	3.9	2.7	3.2	29.4	BA1/0/10 BA170711	3945±25 3870±35	4514	4295	4405				D41 D4i	918	pass
R2112	CSP048	ZongriM33	Zongri	Qinghai	35.3	100.4	2953	DS	3.4	2.5	2.9	29.2	BA171676	4100±25	4808	4523	4666				G2b2a	1009	pass
R2114	CSP057	ZongriM22	Zongri	Qinghai	35.3	100.4	2953	DS	3.4	1.2	2.2	25.9	BA181885	3870±25	4413	4184	4299	-9.7	8.34	3.2	D4i	109	pass
R2121	CSP054	ZongriM78	Zongri	Qinghai	35.3	100.4	2953	DS	1.1	0	0.2	24.4	BA181886	3805±25	4287	4093	4190	-19.4	8.88	3.2	D4i	71	pass
L3197	CSP055	ZongriM40 ZongriM32	Zongri	Qingnai	33.3	100.4	2953	DS	1.1	0.2	0.2	25.7	BA181887	3980±25 3660±30	4520	3900	3993	-11.4	9.06	3.3	D4i	427	pass
L3183	C205	8	Zongri	Qinghai	35.3	100.4	2953	DS				25.7											Fmr
L3231	C2022	Hedong4	Hedong	Qinghai	36.4	102.5	1941	DS	0.2	0	0	13.6	BA172272	375±45	507	315	411	-18.6	10.81	3.2	D4j11	580	pass
L3226	C2016	Hedong6	Hedong	Qinghai	36.4	102.5	1941	DS helf	0.7	0.1	0.4	26.2	BA172269	3890±40	4423	4160	4292	-7.7	8.22	3.2	F1b1+@152	495	pass
L1129	C493	Hupo13	Hupo	Qinghai	36.4	102.0	2117	DS.nair DS.half	0.6	0.5	0.9	5.5	BA172258	3660+35	4089	3888	3989	-7.8	7 32	3.2	D4b2b	223	pass
L1130	C495	Hupo14	Hupo	Qinghai	36.4	102.0	2117	DS.half	1	0	0.1	5.5	BA181889	3820±25	4351	4097	4224	-7.6	6.98	3.2	A10	44	pass
L1132	C497		Hupo	Qinghai	36.4	102.0	2117	DS.half	0.8	0.1	0.2	5.9									A17	69	pass
L1133	C502	C1 h1 0	Hupo	Qinghai	36.4	102.0	2117	DS.half	1.4	0	0.2	5.4	D 4 172271	2950+40	4410	4152	1202	7.6	7.00	2.4	G2a1f	18	pass
L3250 L3257	C2021 C2591	LiuwanOH-1	Liuwan	Qinghai	36.4	102.8	1941	DS	2.3	1.3	1.9	25.9	BA180107	3610±30	4128	3907	4282	-6.8	10.23	3.4	C4a1a2	938	pass
L3258	C2592		Liuwan	Qinghai	36.4	102.6	1941	DS	1.4	0.4	0.8	23.1									M9a	493	pass
L3185	C503	Hejiatai l	Hejiatai	Gansu	36.9	103.1	2381	DS	0.8	0.3	0.5	14.9	BA181888	4270±30	4875	4729	4802	-10	8.16	3.1	B4j	778	pass
L3186	C504 C462	ViabaichiM0	Hejiatai Viabaishi	Gansu	36.9	103.1	2381	DS	1.2	0.3	0.7	27.2	DA172250	2580+25	2080	3720	2855				B4j G2a1f	315	pass
L3152	C462	Alanaisinivi 3	Xiahaishi	Gansu	36.3	102.8	1772	DS	1	0	0	32.2	BA172239	5580±55	3980	5750	3833				F2g	66	pass
L3223	C2011	Dazhuang0	Dazhuang	Qinghai	36.4	102.8	1922	DS	2.3	1.5	1.8	21.5	BA172268	3970±30	4524	4299	4412	-7.6	7.94	3.2	G2a1	652	pass
D1954	C113	HuoshaogouM117	Huoshaogou	Gansu	40.0	97.7	1759	SS	2.9	2	2.4	32	BA170736	3185±25	3451	3366	3409	6.0	0.02	2.4	M10a1	612	pass
D1957	C119 C121	WubaM26 WubaM47	Wuba	Gansu	38.6	100.7	1891	55	2.6	1.7	2.2	26.7	BA181890 BA170738	3615±25 3490+25	3984	3694	3917	-6.9	9.02	3.4	R B4c1c1	554	pass
L3189	C507	Wenpuju03	Wenpuju	Qinghai	36.1	100.7	2162	DS	1.13	0.5	0.8	23.8	BA172264	950±40	935	767	851	-16.1	10.78	3.2	D4crei	577	pass
L3229	C2020	Lierbao0	Lierbao	Qinghai	36.2	102.7	2105	DS	2.1	0.8	1.6	15.9	BA172270	305±30	462	300	381	9.34	9.34	3.1	N9a9	710	pass
L1127	C489		Sanheyi	Qinghai	36.4	102.0	2424	DS.half	1.8	0.1	0.4	8.8									D4b2b	17	pass
L1128 L3184	0492	Sanhevil 1	Sameyi	Qingnai	50.4	102.0	2424	DS.nan	2.6	1.7	2.1	21.6	BA171674	3720±30	4150	3980	4065				F1b1+@152	245 805	pass
L3163	C486		Sanheyi	Qinghai	36.4	102.0	2424	DS				20.1											F
L3165	C518	Jinchankou0	linchankou	Qinghai	37.0	102.5	2291	DS	1.3	0.4	0.8	12.9	BA181891	3540±25	3899	3722	3811	-11.5	9.18	3.2	G3a2	234	pass
L3194	0171	0	0	Q	25.5	102.0	1026	DS	12	2.5		14	D. 100104	2215.20	2602	2520	2/0/	0.5	0.14		D 1 1 (100	100	
L3154 L3156	C474	QijiapingM89-2 QijiapingM108-2	Qijiaping	Gansu	35.5	103.8	1936	DS	4.3	2.5	3.3	26.9	BA180104 BA172260	3315±30 3260±40	3683	3528	3606	-8.5	9.14	3.3	G2a+152	423	pass
L3155	C473	QijiapingM104-2	Qijiaping	Gansu	35.5	103.8	1936	DS	1.2	0.4	0.6	17	BA180105	1805±30	1889	1693	1791	-10.1	13.65	3.1	Flalb	454	pass
L0576	C186		Mogou	Gansu	34.7	103.9	2211	SS	2.1	0.3	1	25.2									D4j	161	pass
L0577	C187		Mogou	Gansu	34.7	103.9	2211	SS	2.6	0.1	0.6	12.9									B4d1	30	pass
L0380 L3218	C190 C776		Mogou	Gansu	34.7	103.9	2211	DS	2	1.4	1.6	28.9									D5a2a1b	634	pass
L3159	C508	Lajigai2	Lajigai	Qinghai	36.0	102.3	2059	DS	0.6	0.1	0.3	34.7	BA180106	2995±25	3389	3145	3267				D4h1c	385	pass
L3161	C512		Lajigai	Qinghai	36.0	102.3	2059	DS	2	1	1.5	24.8									G1c2	520	pass
L3190	C511 C2594		Lajigai	Qinghai	36.0	102.3	2059	DS	2.7	1.4	2	21.7									Z4ala	360	pass
L3229	C2019	Qunke1	Hualongqunke	Qinghai	36.0	102.0	2096	DS	2	0.7	1.3	22.3	BA181892	2480±25	2721	2459	2590	-16.6	10.31	3.2	A17	338	pass
L3264	C2599		Guidehexi	Qinghai	36.0	101.4	2218	DS	0.7	0.2	0.4	26.7									G2a4	499	pass
L3265	C2600		Guidehexi	Qinghai	36.0	101.4	2218	DS	0.6	0.1	0.3	31.2									G2a4	399	pass
L3200 L0526	C2602 CSP152		Yingpanshan	Sichuan	30.0	101.4	1566	SS	1.9	0	0.1	32.8									D4626 D4e1a2	38	pass
L0551_d	CSP153		Yingpanshan	Sichuan	31.7	103.8	1566	SS	8.7	6.3	7.5	37.9									D4	344	pass
L0544	CSP133	PukagongmaM1	Pukagongma	Qinghai	34.9	92.6	4188	SS	2.3	1	1.6	15.8	BA170718	2720±25	2860	2764	2812				D5a2a	296	pass
L0545	CSP134	DultananamaM2	Pukagongma	Qinghai	34.9	92.6	4188	SS	5	0.4	1.6	21	DA170710	2710+25	2867	2755	2011				A15c1	21	pass
L0540	CSP136	PukagongmaM5	Pukagongma	Qinghai	34.9	92.6	4188	SS	1.2	0.5	0.4	10.9	BA180102	2800±35	3061	2864	2963	10.68	10.68	3.2	G2a1h	253	pass
L3164	C514	YushuSGZ-1	Vuchu	Qinghai	24.2	05.5	4192	DS	1.4	0.8	1.1	19.9	BA171675	520±20	553	511	532				M11a2	681	pass
L3191	0.514		i usiiu	Qilighai	54.5	95.5		DS				17.9											
L3219	C1036	XiaoendaM1 XiaoendaM2	Xiaoenda	Tibet	31.6	97.1	3292	DS	2.1	0.9	1.5	27.6	BA172265	2645±25	2790	2740	2765	-17.3	12.94	3.1	F1g	253	pass
L3220 L3222	C1037 C2010	Alaochuaivi2	Xiaoenda	Tibet	31.6	97.1	3292	DS	2.1	1.2	1.2	23.2	BA1/2200	2490±23	2123	2475	2398	-14.8	10.07	3.2	Z4ala	668	pass
L3234		RedilongM3					3249	DS	2.7	1.3	1.9	19.9	BA170717	2700±25	2849	2758	2804				B4d1'2'3	475	pass
L0515	CSP142		Redilong	Tibet	31.1	97.2		SS				25											
L0543		Duter					4(20	SS	2.0	1.2	1.0	22.2	DA 170715	2415:25	2680	2252	2517				C21-2-	161	-
L0516 L3235	CSP144	Butaxiongqu	Butaxiongqu	Tibet	32.0	90.9	4629	55	2.9	1.3	1.9	25.7	BA1/0/15	2415±25	2680	2353	2517				G2b2a	101	pass
L3233	CSP132	ChaxiutangJ2-13	Chaxiutang	Tibet	31.5	92.1	4505	DS	2.9	2.1	2.5	20	BA172273	1170±40	1221	978	1100	9.5	3.3	3.3	M9a1a1c1b1a	812	pass
L0517	CSP147	0	Gelintang	Tibet	31.6	79.6	3741	SS	4.5	2.6	3.4	12									U5alal	294	pass
L3260	C2595		Hualongqunke	Qinghai	36.0	102.0	1014	DS	23	17.3	20.1	28									A15		excluded
L3261	C2596		I uanjie	Qinghai	35.2 36.2	100.4	1814	DS	0.2	0	0.1	24.5									? N		excluded
L3262	C2597		Lierbao	Qinghai	36.2	102.7		DS	8.8	5.1	6.7	26.4									A10		excluded
R2113	CSP049	ZongriM80	Zongri	Qinghai	35.3	100.4		DS	12.7	6.7	9.3	24.1	BA170712	3550±35	3960	3720	3840				D4i		excluded
L0581	C191		Mogou	Gansu	34.7	103.9		SS	18.4	6	10.9	29.6									R11a		excluded

Table S2. Polymorphic positions of the 67 ancient mitogenomes from the Tibetan Plateau

	SampleID	Haplogroup	Quality (%)	Found Polymorphisms
	Butaxiongqu_L0516_HTP	G2b2a	91.52	73G 263G 489C 709A 750G 1438G 1692G 2706G 4680A 4769G 4833G 5108C 5601T 6932G 7028T 8701G 8860G 8877C 9540C 10398G 10400T 10873C 11719A 12705T 13563G 14569A 14766T 14783C 15043A 15301A 15326G 16223T 16362C
	Chaxiutang_L3233_HTP	M9alalc1b1a	96.56	73G 153G ! 263G 489C 711C 750G 1041G 1438G 2706G 3394C 4491A 4769G 7028T 7142C 7697A 8701G 8860G 9242G 9540C 10398G 10400T 10873C 11719A 12705T 14308C 14417G 14766T 14783C 15043A 15301A 15326G 16223T 16234T 16291T ! 16316G 16362C
	Dazhuang_L3223_LTP	G2a1	98.13	73G 263G 489C 709A 750G 1438G 2706G 4769G 4833G 5108C 5601T 7028T 7600A 8701G 8860G 9377G 9540C 9575A 10398G 10400T 10873C 11719A 12705T 13563G 14200C 14569A 14766T 14783C 15043A 15301A 15326G 16223T 16227G 16278T 16362C
	Gelintang_L0517_HTP	U5a1a1	94.8	73G 263G 750G 1438G 1700C 2706G 3197C 4769G 5495C 7028T 8860G 9477A 11467G 11719A 12308G 12372A 13617C 14766T 14793G 15218G 15326G 15924G 16192T 16256T 16270T 16399G
	Guidehexi_L3264_LTP	G2a4	96.07	73G 152C 263G 489C 709A 750G 1438G 2706G 4769G 4833G 5108C 5601T 7028T 7600A 8701G 8860G 9377G 9540C 9575A 10398G 10400T 10873C 11719A 12280G 12705T 13563G 14569A 14766T 14783C 15043A 15301A 15326G 16223T 16227G 16278T 16319A 16362C
	Guidehexi_L3265_LTP	G2a4	96.07	736 1522 7636 489C 709A 7506 14386 27066 4769G 48336 5108C 5601T 7028T 7600A 87016 8860G 9377G 9540C 9575A 103986 10400T 10873C 11719A 12280G 12705T 13563G 14569A 14766T 14783C 15043A 15301A 15326G 16223T 16227G 16278T 16319A 16362C
HandwidtHandwid	Guidenexi_L3266_L1P	D4020	95.47	736 1541 2636 4894 7506 1582C 14386 27065 3010A 47094 48831 517AR 70/281 80/20A 84141 87016 88010 89641 92/961 5940C 9824A 103986 104001 10/873C 11719A 127001 146061 147640 114754 150426 15021 15520 162/231 16562C 1572 1472 1572 1572 1572 1572 1572 1572 1572 15
	Hedong L3220_LTP	P101+@152	94.72	730 152/L / 2030 / 5/00 14360 / 2/000 39/01 4/320 4/090 514/A 0532/L 0902A //2/81 80000 103/0A 1000% L09/01 11/134 12400A 120531 1282A 144/0A 147/001 155200 1018% L032A 1024% L030U 1031L 726 1527 600 / 7567 1306 7 7566 7 3066 7 7566 7 756 7 757 7 757 7 757 7 757 7 757 7 757 7 757 1475 1 777 7 757 1457 1257 1257 1257 1257 1257 1257 1257 12
	Heijataj 13185 LTP	B4i	78.85	130 1500 1500 1500 1500 1500 1500 1500 1
	Hejiatai L3186 LTP	B4i	78.85	73G 263G 750G 827G 1438G 2706G 3548C 4769G 5300T 6122T 7028T 8860G 11719A 11941G 13911G 14766T 15172A 15326G 15535T 16189C 16217C 16223T
	Hualongqunke L3228 LTP	A17	97.05	73G 152C 235G 263G 663G 750G 1438G 1736G 2706G 4113A 4248C 4769G 4824G 5514G 7028T 8794T 8860G 9126C 11719A 12705T 14766T 15217A 15326G 16223T 16290T 16319A 16362C
	Hualongqunke_L3259_LTP	A15a	93.65	73G 152C 207A 235G 263G ! 663G 750G 1438G 1736G 2706G 4248C 4769G 4824G 7028T 8459G 8794T 8860G 11084G 11719A 12705T 14766T 15326G 16223T 16290T 16319A 16362C
	Huoshaogou_D1954_LTP	M10a1	93.23	73G 263G 489C 709A 750G 1438G 2706G 4140T 4769G 7028T 7250G 8701G 8793C 8856A 8860G 9540C 10398G 10400T 10646A 10873C 11719A 12549T 12705T 13152G 14502C 14766T 14783C 15040T 15043A 15071C 15218G 15301A 15326G 16223T 16311C
	Hupo_L1129_LTP	Glc	91.4	73G 263G 489C 593C 709A 750G 1438G 2706G 4769G 4833G 5108C 7028T 8200C 8701G 8860G 9540C 9966A 10398G 10400T 10873C 11719A 12705T 14569A 14766T 14783C 15043A 15301A 15323A 15326G 15497A 16223T 16362C
	Hupo_L1130_LTP	D4b2b	97.29	73G 194T 263G 489C 750G 1382C 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8020A 8414T 8701G 8860G 8964T 9296T 9540C 9824A 10398G 10400T 10873C 11719A 12705T 14668T 14766T 14783C 15043A 15301A 15326G 16223T 16362C
	Hupo_L1131_LTP	A10	94.99	73G 235G 263G 663G 750G 1438G 1736G 2706G 4248C 4759G 4824G 5393C 7028T 7468T 8794T 8860G 9948A 10094T 11719A 12705T 14766T 15326G 16223T 16227C 16290T 16311C 16319A
	Hupo_L1132_LTP	A17 C2-16	97.05	/36 152/ 2356 2636 6636 /506 14386 1/366 2/066 41134 4/486 4/656 48/246 55146 /0281 8/941 88606 91261 11/39 12/051 14/661 1521/A 153266 162/231 162901 16319A 16362C
	Ingohankay 12165 LTP	G2a11	95.04	130 2505 450C /09A 750C 14500 27005 47690 46330 5108C 50011 /0281 /000A 87015 86000 537/6 5540C 5375A 103596 104001 10873C 11715A 1775T 135503 14200C 47595A 15350A 1530A 1530A 15520A 1
	Laiigai L3159 LTP	D4h1c	97.47	130 159X 0503 4957 (J09X 1300 214505 2/1003 4/0504 45505 2J00C /U261 (J021 C/U261 C/U261 0/U260 259UC 10505 112/U51 12/U51 14/054 112/U51 14/051 12/051 155200 155200 155200 155200 1502/40 155250 1522/40 155250 152/40 152/40 155250 152/40 15
	Lajigai L3161 LTP	Glc2	98.85	130 126 639 1300 1300 1300 1300 1300 1300 1300 13
Line Line <thline< th=""> Line Line <thl< td=""><td>Lajigai L3190 LTP</td><td>Z4a1a</td><td>94.16</td><td>73G 15111 152C 263G 4980 750G 1438G 2706G 4715G 4769G 5492C 5894G 6752G 7028T 7196A 8584A 8701G 8860G 9090C 9540C 10386G 10400T 10873C 11719A 12705T 14766T 14783C 15043A 15301A 15326G 15475G 15487T 15784C 16188T 16223T 16260T 16298C 16302G</td></thl<></thline<>	Lajigai L3190 LTP	Z4a1a	94.16	73G 15111 152C 263G 4980 750G 1438G 2706G 4715G 4769G 5492C 5894G 6752G 7028T 7196A 8584A 8701G 8860G 9090C 9540C 10386G 10400T 10873C 11719A 12705T 14766T 14783C 15043A 15301A 15326G 15475G 15487T 15784C 16188T 16223T 16260T 16298C 16302G
Lame Line Line <thlin< th=""> Line Line L</thlin<>	Lierbao L3229 LTP	N9a9	90.34	73G 150T 263G 750G 1438G 2706G 2887C 4769G 5231A 5417A 7028T 8860G 11719A 12358G 12372A 12705T 14766T 15326G 16223T 16257A 16261T
Law Law <thlaw< th=""> <thlaw< th=""> <thlaw< th=""></thlaw<></thlaw<></thlaw<>	Liuwan_L3257_LTP	C4a1a2	97.28	10891G 11719A 11914A 11969A 12672G 12705T 13263G 14318C 14766T 14783C 15043A 15204C 15301A 15326G 15487T 15968C 16093C 16129A 16223T 16298C 16327T
Magu, 107, 17 Mag, 107, 107, 107, 107, 107, 107, 107, 107	Liuwan_L3258_LTP	M9a	88.57	73G 153G 263G 489C 750G 1438G 2706G 3394C 4491A 4769G 7028T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 12705T 14308C 14766T 14783C 15043A 15301A 15326G 16234T 16362C
Mage, 1057, 177 Bell Bill	Mogou_L0576_LTP	D4j	94.33	73G 263G 489C 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11696A 11719A 12705T 14668T 14786T 14783C 15043A 15301A 15326G 16223T 16362C
Mappen Mappen<	Mogou_L0577_LTP	B4d1	83.84	73G 263G 750G 827G 1438G 2706G 4769G 7028T 8860G 11719A 11914A 13942G 14766T 15038G 15326G 15535T 15930A 16189C 16217C
Name Name <th< td=""><td>Mogou_L0580_LTP</td><td>B4c1b2c</td><td>87.9</td><td>73G 150T 263G 709A 750G 1119C 1438G 2706G 3435T 3497T 3571T 4769G 7028T 8860G 9128C 11440A 11719A 14766T 15326G 15346A 16140C 16189C 16217C 16274A 16335G</td></th<>	Mogou_L0580_LTP	B4c1b2c	87.9	73G 150T 263G 709A 750G 1119C 1438G 2706G 3435T 3497T 3571T 4769G 7028T 8860G 9128C 11440A 11719A 14766T 15326G 15346A 16140C 16189C 16217C 16274A 16335G
Image and the state of the state o	Mogou_L3218_L1P	D5a2a1b	96.52	/36 150/ 2636 4997 /506 /52/ 110/c 143861 2/066 35281 4/996 48831 51/88 35016 (02818 //016 88606 91806 91806 91806 91806 91806 110/21 11/94 119442 12/056 12/051 14/88 15326 150/22 11546 151/22 115251 15251
Description Description <thdescription< th=""> <thdescription< th=""></thdescription<></thdescription<>	Pukagongma_L0544_HTP	D 5a2a	97.36	/30 150/ 2030 499/ /300 /32/ 110// 143801 //000 4/090 4/090 4/090 4/090 40831 31/84 35010 /0261 8/010 8000 93800 9340/ 10396 104001 106/sc 11/194 11944 12/000 12/101 14/601 14/850 150484 153004 1532
Duck Duck Dist Dist <th< td=""><td>Pukagongma L0546 HTP</td><td>D59291</td><td>95.08</td><td>130 1324 2330 20301 0035 7300 14500 13500 27000 42400 4700 42400 7700 4350 10500 3934 0000 90320 11734 12703 13111 44007 147001 13200 13240 10314 01300 135100 135240 10314 103014 103014 10301 10314 10301 10314 10301 10314 10301 10314 10310 11310</td></th<>	Pukagongma L0546 HTP	D59291	95.08	130 1324 2330 20301 0035 7300 14500 13500 27000 42400 4700 42400 7700 4350 10500 3934 0000 90320 11734 12703 13111 44007 147001 13200 13240 10314 01300 135100 135240 10314 103014 103014 10301 10314 10301 10314 10301 10314 10301 10314 10310 11310
Ongine [15] 41 LP Rev 16189 R5.5 736 283 2900 1388 2006 47960 7021 8800 11729.1179.01 1756 13580 Description Opgine [15] 15] 1.17 F1.18 R7.5 736 283 2000 788 4706 7021 8800 1179.01 179.00 F016 8800 997.07 8400 597.6 13008 12001 1097.6 1179.0 12901 1358.6 L450A 1450A 1530A	Pukagongma L0547 HTP	G2a1h	98.66	130 1200 1200 1200 1201 1200 1200 1200 1
Oplimating List D Filab	Qijiaping L3154 LTP	R+16189	78.55	73G 263G 750G 1438G 2706G 4769G 7028T 8860G 11719A 14766T 15326G 16189C
Opligibility Cale 1.12 Cale 1.23 Opligibility Cale 1.23 Cale 2.23	Qijiaping_L3155_LTP	Flalb	97.37	64T 73G 263G 750G 1438G 2706G 3970T 4086T 4769G 6392C 6962A 7028T 8860G 9053A 9548A 10310A 10609C 11719A 12406A 12882T 13759A 13928C 14002G 14766T 15326G 16129A 16162G 16172C 16304C
Reline Bull [23] Prote Name Prote Nam Prote Nam <td>Qijiaping_L3156_LTP</td> <td>G2a+152</td> <td>91.8</td> <td>73G 152C 263G 489C 709A 750G 1438G 2706G 4769G 4833G 5108C 5601T 7028T 7600A 8701G 8860G 9377G 9540C 9575A 10398G 10400T 10873C 11719A 12705T 13563G 14569A 14766T 14783C 15043A 15301A 15326G 16223T 16278T</td>	Qijiaping_L3156_LTP	G2a+152	91.8	73G 152C 263G 489C 709A 750G 1438G 2706G 4769G 4833G 5108C 5601T 7028T 7600A 8701G 8860G 9377G 9540C 9575A 10398G 10400T 10873C 11719A 12705T 13563G 14569A 14766T 14783C 15043A 15301A 15326G 16223T 16278T
Samby	Redilong_L3234_HTP	B4d1'2'3	78.65	73G 263G 750G 827G 1438G 2706G 4769G 7028T 8860G 11719A 11914A 13942G 14766T 15326G 15535T 15930A 16189C 16217C
Sambard, L118, LTP G2b1a2 96.24 76.26601 499 (798 A 7960 4380 6 2960 4393 6 4296 4330 4385 color 7028 1900 10397 (1117) 1170 1170 11206 113560 113260 11370 L1202 11520 L121 Sambard, L118, LTP F1. 710 250 color 4360 7906 1438 color 499 color 4	Sanheyi_L1127_LTP	D4b2b	95.76	73G 194T 263G 489C 750G 1382C 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8020A 8414T 8701G 8860G 8964T 9296T 9540C 9824A 10398G 10400T 10873C 11719A 12705T 14668T 14766T 14783C 15043A 15301A 15326G 16223T 16362C
Samboy_L139 L19 F16*10212 92.6 76 152 12.66 70.66 12.20 <	Sanheyi_L1128_LTP	G2b1a2	96.24	73G 263G1 489C 709A 750G 1438G 2706G 3593C 4769G 4833G 4853A 5108C 56017 7028T 8701G 8860G 8877C 9540C 10398G 10400T 10873C 11151T 11719A 12705T 13563G 14569A 14766T 14783C 15043A 15301A 15326G 16172C 16223T 16362C
Singly Diministing [1-249]_LP CP 93.1 23.4 (25.0) 14.2 (25.0)	Sanheyi_L3184_L1P	F1b1+@152	92.67	736 152C/ 2636 7505 14385 27066 39701 47325 47695 5147A 5392C 696A 70281 88065 10310A 10609C 109761 11/194 12406A 126331 128221 13928C 144/6A 147661 153266 16189C 16232A 16249C 16304C 16311C
Image by Control Image by Contro Image by Contro <td>Wannuju 13189 LTP</td> <td>C/6</td> <td>95.75</td> <td>730 250 450C 750C 14365 7/000 35524 7/150 4/030 56214 5516C 95360 7/261 7/506 5640C 9540C 19340 130560 104001 108/35 1110U 11/194 11514A 12/051 15205 15321 14/532 15300A 153200 1546/1 15328A 100510 162231 16236 1052/1</td>	Wannuju 13189 LTP	C/6	95.75	730 250 450C 750C 14365 7/000 35524 7/150 4/030 56214 5516C 95360 7/261 7/506 5640C 9540C 19340 130560 104001 108/35 1110U 11/194 11514A 12/051 15205 15321 14/532 15300A 153200 1546/1 15328A 100510 162231 16236 1052/1
Wake, D195% LTP Belcl 82.98 726 1507 1326 726 1507 1326 726 1507 1326 726 1507 752	Wuba D1957 J TP	R R	83.86	730 203 400 1400 1400 300 4701 900 4001 1100 1000 000 3400 3400 1000 100
Xiahania, 1137. LTP G2al f 96.22 736 2636 4802 r006 7506 14386 27066 4796 64335 1508C 5017 r2078 7600 4870 6570 4796 4937 15796 14798 12706 13798 11590 11590 12000 11697 117194 12705 13586 14200 14560 14783 1504A 15301A 15326 16114 16223T 16227 16278 11630C Xiahania, 1230 HTP Fg 95.0 736 2636 780 70 050 r005 14386 23981 2706 6392 r008 77805 40880 5937 r059 40800 5937 r0594 40595 40800 1007 10737 11719A 12705 13586 14200 14560A 14766T 14783 1504A 15301A 15326 15175 15487 15787 1638C Xiaonda, 1220 HTP G21 94.0 736 2636 480 700 750 14386 27066 4716 4786 4383 5108C 5017 r028T 760A 8706 48800 5937 05940 (3980 5900 5940 10987 11719A 12705 114660 147651 14783 1504A 15301A 15326 15475 15487 11578 11622T 16227 16227 16227 16228T 16228 16322 1 Yinganaha. D052 LTP O4:12 95.0 736 263 480 7500 14386 27066 47166 4883 1578 7564 7028T 8448 7016 8800 5950 10980 10007 10872 (11719A 12705 144670 14783 1504A 15301A 15326 1527 16327 1632C Yinganaha. D152 LTP O4:12 93.0 736 146C 1987 1156 2263 3180 2706 7016 3138 2706 4796 4883 1578 7506 4148 2706 4796 4883 1578 7005 4148 2706 4796 4883 1578 7056 1448 1748 7016 8800 5950 10398 104007 10872 (11719A 12705 14466T 14761 14783 1504A 1530A 15326 16223 1632C Yinganaha. D152 LTP O4 93.7 736 1466 2887 1507 706 4883 1578 7068 4148 7016 8800 5940 (103986 104007 10872 (11719A 12705 14468T 14761 14783 1504A 1530A 15326 16223 116247 1632C Yinganaha. D152 LTP O4 94.8 736 263 4887 7506 14886 77066 3010A 4796 4883	Wuba D1958d LTP	B4c1c1	82.98	73G 150T 195C 214C 263 75G 1119C 1438G 270G 3497T 541G 7028T 8860G 10398G 11719A 13629G 14766T 15326G 15346A 15941C 16189C 16217C 16311C
Xiahusii, 1, 13:1, LTP F2g 95.8 762 6863 4747 506 1082 C12486 18242 C2066 3970 4796 6392 C028T 7828C 88806 10310h 10532 10586A 117314 1233C 1304A 13928C 147661 1532C 15320C Xiaonda, 1, 1320, HTP F2g 95.0 736 2686 7807 14386 12827 C066 47965 (1382 C067) 7028T 7828C 88806 1030 10060 (11731 14)2438C 1206A 11285 11522C 16128T 1629C 15320C 15320C <td>Xiahaishi L3152 LTP</td> <td>G2a1f</td> <td>96.22</td> <td>73G 263G 489C 709A 750G 1438G 2706G 4769G 4833G 5108C 5601T 7028T 7600A 8701G 8860G 9377G 9540C 9575A 10398G 10400T 10873C 11719A 12705T 13563G 14200C 14569A 14766T 14783C 15043A 15301A 15326G 16114T 16223T 16227G 16278T 16362C</td>	Xiahaishi L3152 LTP	G2a1f	96.22	73G 263G 489C 709A 750G 1438G 2706G 4769G 4833G 5108C 5601T 7028T 7600A 8701G 8860G 9377G 9540C 9575A 10398G 10400T 10873C 11719A 12705T 13563G 14200C 14569A 14766T 14783C 15043A 15301A 15326G 16114T 16223T 16227G 16278T 16362C
Xiaoenda13219HTPFig95.073625675061438625906143862592610270125926112592112922112922112922112921	Xiahaishi_L3153_LTP	F2g	95.83	73G 263G 747G 750G 1005C 1438G 1824C 2706G 3970T 4769G 6392C 7028T 7828G 8860G 10310A 10535C 10586A 11719A 12338C 13708A 13928C 14766T 15326G 16291T 16304C
Xiaocada 1222 III G2al 9.7 756 256 489C 709A 750C 1438 C 27066 47365 4895 500T 722T 702T 700A 870G 88706 93776 9540C 9575A 103986 104000 10873C 11719A 12705T 13563 14200C 145691 4785C 154785 15227 16227T 16227T 16227T 16227T Xiaocada J1222 III Value 9416 756 2563 489C 700A 7506 4385 C 2706 47855 549C 547505 54925 5400 C 10397T 1048A 8710 1878C 11719A 12705T 14767T 14782T 1074A 1500A 1530A 153206 15924G 15924G 16922T 16223T 1632C Yingpanshan J055 L TP D41a 9.5 736 263 489C 7506 14386 27066 3010A 3516 A7666 488T 517A 7028T 8414T 87016 88600 9540C 10087C 1179A 12705T 14668T 14766T 14783T 1542A 1530A 153206 16223T 1632C Zongri D1952 LTP D411a 9.03 736 263 489C 7506 14386 27066 3010A 47664 488T 517A 7028T 8414T 87016 88600 9540C 103986 10400T 10873C 1179A 12705T 14668T 14766T 14783C 15043A 1530IA 153266 16123T 1632C Zongri D1952 LTP D411b 0.0 736 263 489C 7506 14386 27066 3010A 47664 488T 517A 7028T 8414T 87016 88606 9540C 103986 10400T 10873C 1179A 12705T 14668T 14766T 14783C 15043A 1530IA 153266 16223T 1632C Congri D1952 11374 12705 13676C Zongri D1952 LTP D410 948 736 263 489C 7506 14386 27066 4796 483T 517A 7028T 8414T 87016 8860 9540C 103986 10400T 10873C 1179A 12705T 14668T 14765T 14783C 1504A 1530IA 153266 16223T 16324T 16324T Congri D192 1179A 12705T 14668T 14765T 14783C 1504A 1530IA 153266 16223T 16324T 1632C	Xiaoenda_L3219_HTP	F1g	95.01	73G 263G 750G 1438G 2389T 2706G 3398C 3970T 4769G 6392C 6962A 7028T 8860G 10310A 10609C 11719A 12406A 12882T 13928C 14766T 15326G 16189C 16304C
Xiaocnad, L322_LHTP Zala 94.16 736 15111 152 C2636 489C 7506 1386 27066 3715 6 4769 6 542C 58946 6752 C 7028T 17196 A 584A 87016 8800 9900 C 9540 C 10398G 104001 10873 C 1121711719.12705T 14766T 14783C 15043A 1530A 15326G 15274 C 10428T 1578A C 16428T 1578A 7028T 844T 87016 8800 9540C 9536T 9540 C 10398G 104001 10873 C 112171 1719 12705T 14766T 14783C 15043A 1530A 15326G 1523T 1632C Yingpanshan_L0551d_LTP D4 90.5 736 6482 5706 1388 C 2706G 488T 5178A 7028T 841H 87016 8800 954C 0028T 8418 8500 10893C 104001 10873 C 112151 11719A 12705T 14466T 14783C 15043A 1530A 15326G 1623T 1632C Zongri D1952_LTP D41 90.7 736 2636 489C 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 841H 8701G 8800G 9540C 10398G 104001 10873 C 11179A 12705T 14466T 14783C 15043A 1530A 15326G 1623T 1632C Zongri D1952_LTP D41 0 736 2636 489C 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 841H 8701G 8800G 9540C 10398G 10400T 10873 C 11739A 12705T 14668T 14766T 14783C 15043A 1530A 15326G 1623T 1632C Zongri D1952_LTP D41 94.9 736 2636 489C 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 841H 8701G 8800G 9540C 10398G 10400T 10873 C 11739A 12705T 14668T 14766T 14783C 15043A 1530A 15326G 1623T 1632C Zongri L149_LTP G21 95.8 736 2636 489C 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 841H 8701G 8800G 9540C 10398G 10400T 10873 C 11739A 12705T 14668T 14765T 14783C 15043A 1530A 15326G 16223T 1632C Zongri L149_LTP D41 94.16 736 2636 489C 7506 1438G 2706G 4796 4833T 517A 7028T 84	Xiaoenda_L3220_HTP	G2a1	94.75	73G 263G 489C 709A 750G 1438G 2706G 4769G 4833G 5108C 5601T 7028T 7600A 8701G 8860G 9377G 9540C 9575A 10398G 10400T 10873C 11719A 12705T 13563G 14200C 14569A 14766T 14783C 15043A 15301A 15326G 16223T 16227G 16278T 16362C
Ymgpanshan_L0250_L1P D4la 98.69 736 94A 2146 2636 489C 7506 14386 2706G 3010A 47969 48831 5178A 594C 10281 8414 7910E 880G 953G 19540C 103975 112151 11719A 1129651 12275 1363C Ymgpanshan_L053L LTP D4la 90.37 736 2636 489C 750G 14386 2706G 3010A 47696 48831 5178A 7028T 8414T 87016 880G 9540C 19902 10398G 10400T 10873C 11719A 1129651 12515 131530A 153226 16223T 16362C Zongri D1952_LTP D4jlb 100 736 2636 489C 750G 14386 2706G 3010A 4769G 4883T 5178A 7028T 8414T 87016 880G 9540C 10398G 10400T 10873C 1179A 12705T 14668T 14766T 14783C 15043A 1530A 15326G 16223T 1632C Zongri D1953_LTP D4 9.93 736 2636 489C 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 87016 880G 9540C 10398G 10400T 10873C 1179A 12705T 14668T 14766T 14783C 15043A 1530A 15326G 16223T 1632C Zongri L1042_LTP D4j 9.73<2636 489C 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 87016 880G 9540C 10398G 10400T 10873C 1179A 12705T 14668T 14766T 14783C 15043A 1530A 15326G 16223T 1632C Zongri L149_LTP G2a1 9.58 736 2636 489C 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 87016 880G 9540C 10398G 10400T 10873C 1179A 12705T 13656T 14783C 15043A 1530A 15326G 16223T 1632C Zongri L149_LTP D4i 9.46 736 2636 489C 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 87016 880G 9540C 10398G 10400T 10873C 1179A 12705T 13656T 14783C 15043A 1530A 15326G 16223T 16224T 1632C Zongri L325C D4i 9.416 736 2636 4	Xiaoenda_L3222_HTP	Z4a1a	94.16	73G 1511! 152C 263G 489C 750G 1438G 2706G 4715G 4769G 5492C 5894G 6752G 7028T 7196A 8584A 8701G 8860G 9090C 9540C 10398G 10400T 10873C 11719A 12705T 14766T 14783C 15043A 15301A 15326G 15475G 15487T 15784C 16185T 16223T 16260T 16298C 16302G
Ymganstan_L051d L1P D4 90.5 736 2636 489C, 5906 13486 27066 3010A 47696 48831 5178A 70281 84141 87016 88006 9540C 19306 1042A 15301A 153266 162231 16362C Zongri D1952_LTP D4jlb 100 736 2636 489C, 7506 1385 27566 13952 17386 27065 43512 7367 25766 13952 17386 27064 8805 15178A 70281 84141 87016 88006 9540C 139386 104001 10873C 1179A 127051 146681 147661 14783C 15043A 15301A 153266 162231 16362C Zongri D1953_LTP D4 94.98 736 2636 489C 7506 13886 27066 3010A 47696 48831 5178A 70281 84141 87016 88006 9540C 139386 104001 10873C 11719A 127051 146681 147661 14783C 15043A 15301A 153266 162231 1632C Zongri L1149_LTP D4j3 95.58 736 2636 489C 7506 1386 27066 3010A 47696 48831 5178A 70281 84141 87016 88006 9540C 139386 104001 10873C 11719A 127051 146681 147661 14783C 15043A 15301A 153266 162231 1632C Zongri L1149_LTP D4j3 95.58 736 2636 489C 7506 13486 27066 3010A 47696 48831 5178A 70281 84141 87016 88006 9540C 139386 104001 10873C 11719A 127051 146681 147661 14783C 15043A 15301A 153266 162231 162241 16362C Zongri L325 LTP D4i 94.16 736 2636 489C 7506 13486 27066 3010A 47696 48831 5178A 70281 84141 87016 8806 9540C 139386 104001 10873C 11719A 127051 146681 147661 14783C 15043A 15301A 153266 162231 162241 16362C Zongri L325 LTP D4i 94.16 736 2636 489C 7506 13486 27066 3010A 47696 48831 5178A 70281 84141 87016 88606 9540C 139386 104001 10873C 11719A 127051 146681 147661 14783C 15043A 15301A 153266 162231 162941 16362C Zong	Yingpanshan_L0526_L1P	D4e1a2	98.69	73G 94A 214G 263G 489C 750G 1438G 2706G 3010A 3316A 4769G 4883T 5178A 5964C 7028T 8414T 8701G 8860G 9536T 9540C 10398G 10400T 10873C 11215T 11719A 12705T 14470C 14668T 14766T 14783C 15043A 15301A 15326G 15924G 16092C 16223T 16362C
Item Initial 50.3 / 703 1460 1591 2153 1532 05 4352 05 4352 07 4352 07 303 10552 17303 10552 17404 A tabbe 3701 85800 55400 150530 1140530 11753 115530 115326 112531 153101 153260 15231 153101 153260 15231 153101 Congri [D155] LTP D4 94.98 73G 2636 4897 750G 1438G 2706G 3010A 4769G 48831 5178A 7028T 84144 8701G 8800 55400 10933C 11719A 12705T 14668T 14765T 14783C 15043A 15301A 15326G 16128T 1632C Zongri [D142] LTP D4j 95.58 73G 2636 4897 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 84144 8701G 8800 55400 10933C 110714 14750T 14783C 15043A 15301A 15326G 16128T 1632C Zongri [D142] LTP D4j 96.263 4897 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 84144 8701G 8800 5540C 103938G 10400T 10873C 11719A 12705T 14668T 14783C 15043A 15301A 15326G 16128T 16225T 1632C Zongri [L317] LTP D4i 94.16 73G 2636 4897 750G 1438G 2706G 3010A 4769G 4883T 5178 7028T 84144 8701G 8800 5540C 10398G 10400T 10873C 11719A 12705T 14668T 14783C 15043A 15301A 15326G 16223T 16227G 16278T 16362C Zongri [L317] LTP D4i 94.10 73G 2636 4897 750G 1438G 2706G 3010A 4769G 4883T 5178 7028T 84144 8701G 8800 5940C 10398G 10400T 10873C 11719A 12705T 14668T 14783C 15043A 15301A 15326G 16223T 16227G 16278T 16362C Zongri [L325] LTP D4i 94.91 73G 2636 4897 750G 1438G 2706G 3010A 4769G 4883T 5178 7028T 84144 8701G 8860G 5940C 10398G 10400T 10873C 11719A 12705T 14668T 14766T 14783C 15043A 15301A 15326G 16223T 16227G 16278T 16362C Zongri [L325] LTP D4i	Yingpansnan_L0551d_L1P	D4 M11e2	90.5	/30 2636 489C /300 14385 //006 30104 4/99G 48831 51/8A /0281 84141 8//016 88006 9540C 104/011 10/3/3L 11/19A 12//051 140831 14/061 14/83C 15043A 15301A 153206 162/231 16502A
Data Ord Ord <td>Zongri D1952 LTP</td> <td>D4ilb</td> <td>100</td> <td>730 1400 1501 2130 2030 3100 3200 4907 / 300 1032, 14300 7/000 4/030 03311 //201 / 0424 01003 0500 10300 10300 10000 10030 11/201 100/30 11/201 14/001 14/001 14/001 14/001 14/001 10300 101/31 102251</td>	Zongri D1952 LTP	D4ilb	100	730 1400 1501 2130 2030 3100 3200 4907 / 300 1032, 14300 7/000 4/030 03311 //201 / 0424 01003 0500 10300 10300 10000 10030 11/201 100/30 11/201 14/001 14/001 14/001 14/001 14/001 10300 101/31 102251
Congri Lobe Dig 96.95 736 2636 4890 7500 14386 2706 3710 2636 4890 7500 14386 2706 3710 2636 4890 7500 14386 2706 3710 2636 4890 7500 14386 2706 4336	Zongri D1953 LTP	D4j10 D4	94 98	730 2004 4902 7506 1436 2766 3010 4769 4953 15787 15787 7028 84147 87012 8860 9400 13986 10001 10872 112950 140681 1138 127051 14061 14765 15787 15587 15587 15587 15587 15587
Zongri_L1149_LTP G2a1 95.58 736 2636 489C 709A 7506 14386 27066 4769G 48336 5108C 5601T 7028T 7600A 87016 8860G 9377G 9540C 9575A 10398G 10400T 10873C 11719A 12705T 13563G 14200C 14569A 14766T 14783C 15043A 15301A 15326G 16223T 16227G 16278T 16362C Zongri_L3197_LTP D4i 94.16 736 2636 489C 7506 14386 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 12705T 14668T 14765T 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri_L3255_LTP D4i 94.91 736 2636 489C 709A 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 12705T 14568T 14765T 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri_L3256_LTP D4i 94.91 736 2636 489C 709A 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 12705T 13563G 14200C 14569A 14766T 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri_R2089_LTP D4i 94.16 736 2636 489C 709A 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 12705T 13563G 14200C 14569A 14766T 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri_R2018_LTP D4i 94.16 736 2636 489C 709A 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 12705T 14668T 14766T 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri_R2011_LTP D4i 94.16 736 2636 489C 709A 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701	Zongri L0642 LTP	D4j3	96.95	73G 263G 489C 750G 1438G 2706G 3010A 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11696A 11719A 12705T 14668T 14766T 14783C 15043A 15301A 15326G 16184T 16223T 16311C 16362C
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Zongri L3255_LTP D4i 94.91 736 2636 489C 7506 14386 27066 3010A 4769G 4883T 5178A 7028T 8414T 87016 8860G 9540C 10398G 10400T 10873C 11719A 12705T 14668T 14766T 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri L3256_LTP D4i 94.16 736 2636 489C 709A 750G 14386 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 1270ST 13563G 1420C 14569A 1476GT 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri R2108_LTP D4i 94.16 736 2636 489C 709A 750G 14386 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 1270ST 14668T 1476GT 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri R2110_LTP D4i 94.16 736 2636 489C 709A 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 1270ST 14668T 14766T 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri R2112_LTP D4i 94.91 736 2636 489C 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 1270ST 13653G 14569A 14766T 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri R2112_LTP D4i 94.91 736 2636 489C 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 1270ST 13653G 14569A 14766T 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri R2112_LTP D4i 94.91 736 2636 489C 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 1270ST 1	Zongri_L3254_LTP	D4i	94.91	73G 263G 489C 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 12705T 14668T 14766T 14783C 15043A 15301A 15326G 16223T 16294T 16362C
Zongri L3256 LTP G2al 93.41 732 6236 489C 709A 750G 1348C 2706G 4769G 5108C 5001T 7028T 7600A 8701G 8860G 9377G 9540C 9575A 10398G 10400T 10873C 11719A 12705T 13563G 14200C 14569A 1476GT 14783C 15043A 15301A 15326G 16223T 16227T 16227G 16278T 16362C Zongri R2089_LTP D4i 94.16 736 2636 489C 709A 750G 1348C 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 12705T 14668T 1476GT 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri R2112_LTP D4i 94.9 736 2636 489C 709A 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 12705T 14668T 14766T 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri R2112_LTP D4i 94.9 736 2636 489C 709A 750G 1438G 1296G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 12705T 1365G 14569A 14766T 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri R2114_LTP D4i 94.91 736 2636 489C 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 12705T 14668T 14765T 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri R2112_LTP D4i 93.66 736 2636 489C 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 12705T 14668T 14765T 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri R212_LTP D4i 93.66 736 2636 489C 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C	Zongri_L3255_LTP	D4i	94.91	73G 263G 489C 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 12705T 14668T 14766T 14783C 15043A 15301A 15326G 16223T 16294T 16362C
Zongri RXUMP L1P D41 94.16 736 2636 489C 7506 14386 27066 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 12705T 14668T 14765T 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri R2111_LTP D4i 94.6 736 2636 489C 7506 14386 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 12705T 14668T 14765T 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri R2112_LTP G2b2a 97.69 736 2636 489C 750G 14386 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 8540C 10398G 10400T 10873C 11719A 12705T 13653C 14569A 147651 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri R2114_LTP D4i 94.91 736 2636 489C 750G 14386 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 8540C 10398G 10400T 10873C 11719A 12705T 14668T 1476GT 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri R2114_LTP D4i 93.66 736 2636 489C 750G 14386 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 8540C 10398G 10400T 10873C 11719A 12705T 14668T 1476GT 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri R2112_LTP D4i 93.66 736 2636 489C 750G 14386 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 12705T 14668T 14766T 14783C 15043A 15301A 15326G 16223T 16294T 16362C Zongri R2112_LTP D4i 93.66 736 2636 489C 750G 14386 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 12705T 14668T 14766T 14783C 15043A 15301A	Zongri_L3256_LTP	G2a1	93.41	73G 263G 489C 709A 750G 1438G 2706G 4769G 5108C 5601T 7028T 7600A 8701G 8860G 9377G 9540C 9575A 10398G 10400T 10873C 11719A 12705T 13563G 14200C 14569A 14766T 14783C 15043A 15301A 15326G 16223T 16227G 16278T 16362C
Zongri R2111_L1P D41 94.10 730 2056 490, 7506 14386 Z/006 3010A 47696 48835 1578A 7028 18414 87016 8800 5940C 103986 104001 108/3C 11/194 12/051 140451 1438L 15043A 15301A 153206 162231 162941 1656Z Zongri R2114_LTP D4i 94.91 736 2636 4890 7506 14386 Z/006 3010A 47696 48835 1578A 7028T 8414 87016 88606 5940C 103986 10400T 108/3C 11/194 12/051 140451 13563 145650 14783C 15043A 15301A 153266 162231 163941 1656Z Zongri R2114_LTP D4i 94.91 736 2636 4890 7506 14386 Z/006 3010A 47696 4883T 5178A 7028T 8414T 87016 88606 59540C 103986 10400T 108/3C 11/194 12/05T 14668T 14766T 14783C 15043A 15301A 153266 16223T 16394T 16362C Zongri R2121_LTP D4i 93.66 730 2636 4890 7506 14386 Z/066 3010A 47696 4883T 5178A 7028T 8414T 87016 88606 59540C 103986 10400T 108/3C 11/194 12/05T 14668T 14766T 14783C 15043A 15301A 153266 16223T 16394T 16362C Zongri R212_LTP D4i 93.66 730 2636 4890 7506 14386 Z/066 3010A 47696 4883T 5178A 7028T 8414T 87016 88606 59540C 103986 10400T 108/3C 11/194 12/05T 14668T 14783C 15043A 15301A 153266 16223T 16394T 16362C Zongri R212_LTP D4i 93.66 730 2636 4890 7506 14386 Z/066 4883T 5178A 7028T 8414T 87016 88606 5940C 103986 10400T 108/3C 11/194 12/05T 14668T 14783C 15043A 15301A 153266 16223T 16394T 16362C Zongri R212_LTP D4i 93.66 730 2636 4890 7506 14386 Z/068 4883T 5178A 7028T 8414T 87016 88606 5940C 103986 10400T 108/3C 11/194 12/05T 14668T 14786T 14783C 15043A 15301A 153266 16223T 16294T 16362C	Zongri_R2089_LTP	D41	94.16	/36/2636/489C /SUG 14486 2/066/30104 4/096/48831 51/56 /2021 84141 87/016 8860G 9540C 103986 10400T 10873C 11719A 127/05T 14668T 147/66T 14783C 15043A 15301A 153266 16223T 16234T 16326C
Zongri R2114_LTP Di 94.91 736 2636 489C 7506 13836 27066 3010A 47696 4883T 5178A 7028T 8414T 87016 88606 9540C 103986 10400T 10873C 11719A 12705T 14668T 14783C 15043A 15301A 153266 16223T 16294T 16362C Zongri R2121_LTP Di 93.66 736 2636 489C 7506 14386 27066 3010A 47696 4883T 5178A 7028T 8414T 87016 88606 9540C 103986 10400T 10873C 11719A 12705T 14668T 14783C 15043A 15301A 153266 16223T 16294T 16362C Zongri R212_LTP Di 93.66 736 2636 489C 7506 14386 27066 3010A 47696 4883T 5178A 7028T 8414T 87016 88606 9540C 103986 10400T 10873C 11719A 12705T 14668T 14783C 15043A 15301A 153266 16223T 16294T 16362C Zongri R212_LTP Di 93.66 736 2636 489C 7506 14386 27066 3010A 47696 4883T 5178A 7028T 8414T 87016 88606 9540C 103986 10400T 10873C 11719A 12705T 14668T 14785C 15043A 15301A 153266 16223T 16294T 16362C Duri R212_LTP Di 94.91 736 2636 489C 7506 14386 27066 3010A 47696 4883T 5178A 7028T 8414T 87016 88606 9540C 103986 10400T 10873C 11719A 12705T 14668T 14785C 15043A 15301A 153266 16223T 16294T 16362C	Zongri_K2111_L1P	D41 G2b2a	94.10	130 2009 402, 2009 2400, 2400 2400 2400 2400 2400 2400 240
Zongri R2121 LTP D4 94.91 736 2636 4890 7506 14386 27066 3010A 47696 4883T 5178A 7028T 8414T 87016 88606 9540C 103986 10400T 10873C 11719A 12705T 14668T 14765C 15043A 15301A 153266 16223T 16294T 16362C Zongri R2121 LTP D4 94.91 736 2636 489C 7506 14386 27066 3010A 47696 4883T 5178A 7028T 8414T 87016 88606 9540C 103986 10400T 10873C 11719A 12705T 14668T 14765C 15043A 15301A 153266 16223T 16294T 16362C	Zongri R2112_LTP	0202a D4i	97.09	130 200 402, 1/2/4 / 2/00 14001 102/0 2/000 400/4 4/020 400/1 032/0 1/0/1 032/0 1/0/1 032/0 1/0/0 103/2 0/1/0 30/0 103/2 0/1/0 10/1/0
Tomeri 212 ITP D4 9 736 2636 499C 7506 14386 72066 3010A 47696 4883 5178A 7028 8414 87016 88660 9540C 103986 10400T 10873 C11704 12705T 14568T 14765T 14785 (50434 15301A 15326 1623) 1624T 1624C	Zongri R2121 LTP	D4i	93.66	Too boot and/or
	Zongri_R2122_LTP	D4i	94.91	73G 263G 489C 750G 1438G 2706G 3010A 4769G 4883T 5178A 7028T 8414T 8701G 8860G 9540C 10398G 10400T 10873C 11719A 12705T 14668T 14783C 15043A 15301A 15326G 16223T 16294T 16362C

Table S3. Summary of the 67 ancient mitogenomes from the Tibetan Plateau

GSA Accession	Haplogroup (v17)	Haplotype	Ancient individuals
HPP050762	G2alf	Hanlotuna 1	Viahaishi 12152 ITD*
HRR050762	E2a	Haplotype 1	Xiahaishi L 3152_L IT
HRR050764	M10a1	Haplotype 3	Huoshaogou D1954 LTP*
HRR050765	R	Haplotype 4	Wuba D1957 LTP*
HRR050766	B4c1c1	Haplotype 1 Haplotype 5	Wuba D1958d LTP
HRR050767	G3a2	Haplotype 6	Jingchankou L3165 LTP*
HRR050768	B4j	Haplotype 7	Hejiatai L3185 LTP*
HRR050769	B4j	Haplotype 7	Hejiatai L3186 LTP
HRR050770	D4j	Haplotype 8	Mogou_L0576_LTP
HRR050771	B4d1	Haplotype 9	Mogou_L0577_LTP
HRR050772	B4c1b2c	Haplotype 10	Mogou_L0580_LTP
HRR050773	D5a2a1b	Haplotype 11	Mogou_L3218_LTP
HRR050774	R+16189	Haplotype 12	Qijiaping_L3154_LTP*
HRR050775	Flalb	Haplotype 13	Qijiaping_L3155_LTP*
HRR050776	G2a+152	Haplotype 14	Qijiaping_L3156_LTP*
HRR050777	D4e1a2	Haplotype 15	Yingpanshan_L0526_LTP
HRR050770	D4	Haplotype 16	Yingpanshan_L0551d_L1P
HKR050779	D4j10	Haplotype 17	Zongri D1952_LTP* Zongri D1952_LTP*
HRR050781	D4 D4i3	Haplotype 18	Zongri 1.0642 I TP
HRR050782	D4J3 G2a1	Haplotype 19	Zongri I 1149 I TP
HRR050783	D4i	Haplotype 20	Zongri I 3197 LTP*
HRR050787	D4i	Haplotype 21	Zongri R2089 LTP*
HRR050788	D4i	Haplotype 21	Zongri R2111 LTP*
HRR050784	D4i	Haplotype 22	Zongri_L3254_LTP*
HRR050785	D4i	Haplotype 22	Zongri_L3255_LTP*
HRR050790	D4i	Haplotype 22	Zongri_R2114_LTP*
HRR050786	G2a1	Haplotype 23	Zongri_L3256_LTP*
HRR050789	G2b2a	Haplotype 24	Zongri_R2112_LTP*
HRR050791	D4i	Haplotype 25	Zongri_R2121_LTP*
HRR050792	D4i	Haplotype 26	Zongri_R2122_LTP*
HRR050793	G2a1	Haplotype 27	Dazhuang_L3223_LTP*
HRR050794	C/b	Haplotype 28	Shangluzhuang_L3230_LTP*
HKR050795	F101+@152	Haplotype 29	Hedong_L3226_L1P*
HRR050797	D4J11 Glc	Haplotype 30	Hupo I 1129 I TP
HRR050797	D4b2b	Haplotype 31	Hupo $I 1130 I TP*$
HRR050799	A10	Haplotype 32	Hupo L1131 LTP*
HRR050800	A17	Haplotype 34	Hupo L1132 LTP
HRR050801	G2a1f	Haplotype 35	Hupo L1133 LTP
HRR050802	D4b2b	Haplotype 36	Sanheyi_L1127_LTP
HRR050803	G2b1a2	Haplotype 37	Sanheyi_L1128_LTP
HRR050804	F1b1+@152	Haplotype 38	Sanheyi_L3184_LTP*
HRR050805	C4a1a2	Haplotype 39	Liuwan_L3257_LTP*
HRR050806	M9a	Haplotype 40	Liuwan_L3258_LTP
HRR050807	AlSa	Haplotype 41	Hualongqunke_L3259_LTP
HRR050827	Alba	Haplotype 41	Xiaoenda L3222 HIP
HKR050808	A17	Haplotype 42	Guidabayi L2265 LTP
HRR050809	D/hlc	Haplotype 42	Laiigai L 3150 L TP*
HRR050810	Glc2	Haplotype 45	Lajigai L 3161 LTP
HRR050811	Z4ala	Haplotype 45	Lajigai L3190 LTP
HRR050812	G2a4	Haplotype 46	Guidehexi L3264 LTP
HRR050814	D4b2b	Haplotype 47	Guidehexi_L3266 LTP
HRR050815	N9a9	Haplotype 48	Lierbao_L3229_LTP*
HRR050816	D4	Haplotype 49	Wenpuju_L3189_LTP*
HRR050817	M11a2	Haplotype 50	Yushu_L3164_HTP*
HRR050818	D5a2a	Haplotype 51	Pukagongma_L0544_HTP*
HRR050819	A15cl	Haplotype 52	Pukagongma_L0545_HTP
HRR050820	D5a2a1	Haplotype 53	Pukagongma_L0546_HTP*
HKKU3U821	G2ain	Haplotype 54	Putayion and L054/_H1P*
HPP050822	MQalalalbla	Haplotype 55	Chavintang I 2222 UTD*
HRR050824	B4d123	Haplotype 50	Redilong I 3234 HTP*
HRR050825	Flg	Haplotype 58	Xiaoenda L3219 HTP*
HRR050826	G2al	Haplotype 59	Xiaoenda L3220 HTP*
HRR050828	U5a1a1	Haplotype 60	Gelintang_L0517_HTP*
Jeong et al study	D4i1b	Haplotype 61	Chokhopani C1 HTP*
Jeong et al study	M9a1a2	Haplotype 62	Mebrak M240 HTP*
Jeong et al study	Z3a1a	Haplotype 63	Mebrak M344 HTP*
Jeong et al study	M9a1a1c1b1a	Haplotype 64	Mebrak_M63_HTP*
Jeong et al study	M9alalc1b1a	Haplotype 65	Samdzong_S10_HTP*
Jeong et al study	M9a1a	Haplotype 66	Samdzong_S35_HTP*
Jeong et al study	Flclala	Haplotype 67	Samdzong_S40_HTP*
Jeong et al study	F1d	Haplotype 68	Samdzong_S41_HTP*

*individuals with date information in Table S1 and Jeong et al. boxes are individuals sharing same haplotype

Population n Group 1 Group 2 Refer	ence
Daur 10 N.China China [19]	
Hezhen 10 N.China China [19]	
Mongolia 10 N.China China [19]	
Oroqen 10 N.China China [19]	
Tu 10 N.China China [19]	
Xibo 9 N.China China [19]	
Naxi 10 S.China China [19]	
Dai 10 S.China China [19]	
Han45S.ChinaChina[19]	
Lahu 10 S.China China [19]	
Miao 10 S.China China [19]	
She 10 S.China China [19]	
Tujia10S.ChinaChina[19]	
Yi 10 S.China China [19]	
Yunnan.Han 8 S.China China [20]	
Hakka 45 S.China China [21]	
Minnan 50 S.China China [21]	
Kyrgyz 125 China.Xinjiang China.Xinjiang [22]	
Sarikoli.Tajik 86 China.Xinjiang China.Xinjiang [22]	
Uygur 37 China.Xinjiang China.Xinjiang [19, 2	2]
Wakhan.Tajik 66 China.Xinjiang China.Xinjiang [22]	
Chamdo 5 China.Tibet China.Tibet [23]	
Lhasa 7 China.Tibet [23]	
Nagqu 17 China.Tibet China.Tibet [24]	
Ngari 1 China.Tibet [23]	
Nyingchi.Deng 91 China.Tibet [25]	
Nyingchi.Lhoba 91 China.Tibet China.Tibet [25]	
Nyingchi.Monpa 22 China.Tibet China.Tibet [25]	
Shannan 9 China.Tibet China.Tibet [23]	
Sherpa 6 China.Tibet [25]	
Shigatse 18 China.Tibet China.Tibet [24]	
Shigatse.Sherpa 76 China.Tibet [25]	
Shigatse.Tingri 86 China.Tibet [25]	
Nepalese 21 Nepal Nepal [26]	
Sherpa 83 Nepal [27]	
Tharu 35 Nepal [28]	
Kamar 53 N.India S.Asia [29]	
Malpaharia 15 N.India S.Asia [29]	
Munda 30 N.India S.Asia [29]	
Dirang.Monpa 30 NE.India NE.India [29]	
Monpa.Dirang 32 NE.India NE.India [29]	
Gallong 39 NE.India [29]	

Table S4. Present-day populations used in this study (and their grouping in this study)

Lepcha	20	NE.India	NE.India	[29]
Shertukpen	15	NE.India	NE.India	[29]
Sonowal.Kachari	19	NE.India	NE.India	[29]
Toto	28	NE.India	NE.India	[29]
Wanchoo	22	NE.India	NE.India	[29]
Pauri.Bhuiya	32	E.India	S.Asia	[29]
Andh	19	W.India	S.Asia	[29]
Dongri.Bhill	43	W.India	S.Asia	[29]
Hill.Kolam	8	W.India	S.Asia	[29]
Kathakur	19	W.India	S.Asia	[29]
Kathodi	15	W.India	S.Asia	[29]
Katkari	19	W.India	S.Asia	[29]
Korku	15	W.India	S.Asia	[29]
Madia	20	W.India	S.Asia	[29]
Mathakur	11	W.India	S.Asia	[29]
Nihal	30	W.India	S.Asia	[29]
Betta.Kuruba	30	S.India	S.Asia	[29]
Jenu.Kuruba	79	S.India	S.Asia	[29]
Balochi	24	Pakistan	S.Asia	[19]
Brahui	25	Pakistan	S.Asia	[19]
Burusho	25	Pakistan	S.Asia	[19]
Hazara	24	Pakistan	S.Asia	[19]
Kalash	25	Pakistan	S.Asia	[19]
Makrani	25	Pakistan	S.Asia	[19]
Pathan	25	Pakistan	S.Asia	[19]
Sindhi	25 25	Pakistan	S. Asia	[19]
Altajan Kazakh	12	Russia	N.Asia	[30]
Altaian Kizhi	16	Russia	N.Asia	[30]
Barghut	14	Russia	N Asia	[30]
Burvat	53	Russia	N Asia	[30]
Khamnigan	14	Russia	N Asia	[30]
Vakut	25	Russia	N Asia	[30]
owland Taijik	23 28	Tajikietan	C Asia	[20]
Dowiand. Taijik Pamir Taijik	20 50	Tajikistan	C Asia	[∠∠] [22]
Ami	50	Austronesian	C.Asia	[∠∠] [21]
niii A taval	50	Austronesian	Austronesian	[∠1] [21]
Alayal	50	Austronesian	Austronesian	[21]
3unun	50	Austronesian	Austronesian	[21]
	50	Austronesian	Austronesian	[21]
aiwan	50	Austronesian	Austronesian	[21]
ruyuma	39	Austronesian	Austronesian	[21]
Kukai	50	Austronesian	Austronesian	[21]
Saisiat	24	Austronesian	Austronesian	[21]
l'ao	44	Austronesian	Austronesian	[21]
Fsou	48	Austronesian	Austronesian	[21]
Arakanese	4	Myanmar	Myanmar	[31]
Bamar	23	Myanmar	Myanmar	[31]

Burmans	34	Myanmar	Myanmar	[31]	
Chin	18	Myanmar	Myanmar	[31]	
Karen	12	Myanmar	Myanmar	[31]	
Mon	2	Myanmar	Myanmar	[31]	
Naga	10	Myanmar	Myanmar	[31]	
Rakhine	11	Myanmar	Myanmar	[31]	
Shan	2	Myanmar	Myanmar	[31]	
Laos	24	Laos	MSEA	[32]	
Cambodian	11	Cambodia	MSEA	[19]	
Black.Tai	50	Thailand	MSEA	[33]	
Blang	50	Thailand	MSEA	[33]	
Bru	24	Thailand	MSEA	[33]	
Htin	75	Thailand	MSEA	[33]	
Kalueng	25	Thailand	MSEA	[33]	
Khamu	25	Thailand	MSEA	[33]	
Khmer	44	Thailand	MSEA	[33]	
Khon.Mueang	244	Thailand	MSEA	[33]	
Lao	25	Thailand	MSEA	[33]	
Lao.Isan	100	Thailand	MSEA	[33]	
Lawa	70	Thailand	MSEA	[33]	
Mon	110	Thailand	MSEA	[33]	
Nyahkur	23	Thailand	MSEA	[33]	
Nyaw	25	Thailand	MSEA	[33]	
Paluang	25	Thailand	MSEA	[33]	
Phuan	125	Thailand	MSEA	[33]	
Phutai	25	Thailand	MSEA	[33]	
Seak	26	Thailand	MSEA	[33]	
Shan	24	Thailand	MSEA	[33]	
Soa	22	Thailand	MSEA	[33]	
Suay	25	Thailand	MSEA	[33]	
Yuan	42	Thailand	MSEA	[33]	
CoLao	34	Vietnam	MSEA	[32]	
Dao	44	Vietnam	MSEA	[32]	
Ede	24	Vietnam	MSEA	[32]	
Giarai	30	Vietnam	MSEA	[32]	
HaNhi	33	Vietnam	MSEA	[32]	
HMong	41	Vietnam	MSEA	[32]	
Kinh	51	Vietnam	MSEA	[32]	
LaChi	36	Vietnam	MSEA	[32]	
LaHu	32	Vietnam	MSEA	[32]	
LoLo	36	Vietnam	MSEA	[32]	
Mang	37	Vietnam	MSEA	[32]	
Nung	37	Vietnam	MSEA	[32]	
PaThen	36	Vietnam	MSEA	[32]	
PhuLa	35	Vietnam	MSEA	[32]	
SiLa	31	Vietnam	MSEA	[32]	

Tay	48	Vietnam	MSEA	[32]
Thai	24	Vietnam	MSEA	[32]
Total individuals	4,656		(137 popula	tions)

	HTP	LTP	Tibetan
A+152+16362	0	0	0.5
A10	0	1.8	0
A11+16234	0	0	0.2
A11a	0	0	4.1
A11b	0	0	0.5
A15a	0	1.8	0.2
A15c1	5	0	3.7
A17	0	3.6	0.9
A21	0	0	0.9
A6	0	0	1.4
A6b	0	0	0.5
A7	0	0	1.1
B4a1c4	0	0	0.2
B4c1b2c	0	1.8	0
B4c1c1	0	1.8	0
B4d1	0	1.8	0
B4d123	5	0	0.2
B4j	0	3.6	0
B5b1	0	0	0.2
C4+152+16093	0	0	0.2
C4a1a2	0	1.8	0
C4a1a4a	0	0	0.2
C4a2b	0	0	0.9
C4a2b2	0	0	1.1
C4a2b2a	0	0	3.4
C4d	0	0	0.7
C7b	0	1.8	0
D2b1	0	0	0.2
D4	0	5.5	0.2
D4b2b	0	5.5	0.2
D4b2b5	0	0	0.5
D4e1a	0	0	0.2
D4e1a2	0	1.8	0
D4h1c	0	1.8	1.8
D4h4	0	0	0.2
D4i	0	14.5	0
D4j	0	1.8	0
D4j11	0	1.8	0
D4j13	0	0	0.7
D4j15	0	0	0.2
D4j1a1	0	0	0.7
D4j1a1a	0	0	0.7
D4j1a2	0	0	0.2

 Table S5. Haplogroup frequencies between ancient and present-day plateau populations

D4j1b 5 1.8 0.7 D4j3 0 1.8 0.2 D4n2 0 0 0.5 D4q 0 0 0.9 D5a2a 5 0 0 D5a2a1 5 0 0.77 D5a2a1b 0 1.8 3.4 D5a2b 0 0 0.99 D5a3a 0 0 0.77 D6a1 0 0 0.77 D6a1 0 0 0.77 D6a1 0 0 0.77 F1a1 0 0 0.77 D6a1 0 0 0.77 F1a1 0 0 0.77 F1a1 0 0 0.22 F1a1b 0 0 0.22 F1a1 0 0 0.21 F1a1 0 0 0.21 F1d 0 0 0.21 F1g 0 0 0.22 G1a2 0 1.8 0				
D4j301.80.2D4n2000.5D4q000.99D5a2a500D5a2a1500.77D5a2a1b01.83.4D5a2b000D5a3a000.77D6a1000.77F1a1000.77F1a1b01.80F1a1c000.22F1b1+@15203.60.22F1c1a1a500.55F1c1a2002.1F1f000.21F1g500.21F1g500.21F1g500.21F1g500.21F2g01.80G1a2000.22G1a201.80G2a155.51.1G2a1+15201.80G2a155.51.1G2a1h500G2a1h500G2a403.60G3a1000.22G3a1a000.55G3a1a000.55G3b1000.55G3b1000.55G3b1000.55G3b1000.55G3b100	D4j1b	5	1.8	0.7
D4n2000.5D4q000.99D5a2a500D5a2a1500.7D5a2a1b01.83.4D5a2b000.99D5a3a000.77D6a1000.77F1a1000.77F1a1b01.80F1a1c000.22F1b1+@15203.60.22F1c1a1a500.5F1c1a2000.21F1d000.21F1f000.21F1g500.21F1g500.21F1g500.21F1g500.21F2g01.80G1a2000.22G1a201.80G2a155.51.1G2a155.51.1G2a1500G2a151.80G2a1h500G2a403.60G3a1000.22G3a1a000.55G3a1a000.55G3b1000.23G3b1000.24G3b1000.25G3b1000.25G3b1000.25	D4j3	0	1.8	0.2
D4q000.9D5a2a500D5a2a1500.7D5a2a1b01.83.4D5a2b000.99D5a3a000.77D6a1000.77F1a1000.75F1a1b01.80F1a1c000.22F1b1+@15203.60.22F1c1a1a500.55F1c1a2000.21F1d000.22F1d000.21F1d000.22F1d000.22F1g500.21F1d000.22F1g500.21F2g01.80G1a2000.22G1c01.80G2a+15201.80G2at+16189000.22G2ath55.51.1G2ab1000.22G3a1000.22G3a1000.55G3b1000.21H10a1000.21)4n2	0	0	0.5
D5a2a 5 0 0 D5a2a1 5 0 0.7 D5a2a1b 0 0 0.99 D5a2a 0 0 0.99 D5a3a 0 0 0.77 D6a1 0 0 0.77 F1a1 0 0 0.77 F1a1b 0 1.8 0 F1a1c 0 0 0.22 F1b1+@152 0 3.6 0.22 F1c1a1a 5 0 0.5 F1c1a2 0 0 1.6 F1d 5 0 0.21 F1d 0 0 0.22 F1g 5 0 0.21 F1d 0 0 0.22 F1g 5 0 2.1 F2g 0 1.8 0 G1a2 0 0 0.22 G1c 0 1.8 0 G2a+152 0 1.8 0 G2at+16189 0 0)4q	0	0	0.9
D5a2a1 5 0 0.7 D5a2a1b 0 0 0.99 D5a2b 0 0 0.77 D6a1 0 0 0.77 Fla1 0 0 0.77 Fla1 0 0 0.77 Fla1 0 0 0.75 Fla1 0 0 0.55 Fla1b 0 1.8 0 Fla1c 0 0 0.22 Flb1+@152 0 3.6 0.2 Flc1a1 5 0 0.5 Flc1a2 0 0 1.6 Fld 5 0 0.2 Flc1a2 0 0 0.2 Flg 5 0 2.1 Flg 5 0 2.1 F2g 0 1.8 0 G1a2 0 0 0.2 G1a2 0 1.8 0 G2a1 5 5.5 1.1 G2a1 5 0 0<	D5a2a	5	0	0
D5a2a1b 0 1.8 3.4 D5a2b 0 0 0.9 D5a3a 0 0 0.7 D6a1 0 0 0.7 Fla1 0 0 0.5 Fla1b 0 1.8 0 Fla1b 0 1.8 0 Fla1c 0 0 0.22 Flb1+@152 0 3.6 0.2 Flc1a1a 5 0 0.5 Flc1a2 0 0 1.6 Fld 5 0 0.9 Fld1 0 0 0.21 Flg 5 0 2.1 Flg 5 0 2.1 Flg 5 0 2.1 Flg 0 0 0.22 Glc 0 1.8 0 G1a2 0 1.8 0 G2a1 5 5.5 1.1 G2a1 5 5.5 1.1 G2a1 5 1.8 0 <td>D5a2a1</td> <td>5</td> <td>0</td> <td>0.7</td>	D5a2a1	5	0	0.7
D5a2b 0 0 0.9 D5a3a 0 0 0.7 D6a1 0 0 0.7 Fla1 0 0 0.5 Fla1b 0 1.8 0 Fla1b 0 1.8 0 Fla1c 0 0 0.2 Fla1b 0 1.8 0 Fla1c 0 0 0.2 Fla1b 0 0 0.2 Fla1c 0 0 0.2 Fla1a 5 0 0.5 Flc1a1a 5 0 0.5 Fld 0 0 0 Fld1 0 0 0 Fld1 0 0 0 G1a2 0 1.8 0 G1a2 0 1.8 0 G2a1 5 5.5 1.1 G2a1 5 0 0 0 <t< td=""><td>D5a2a1b</td><td>0</td><td>1.8</td><td>3.4</td></t<>	D5a2a1b	0	1.8	3.4
D5a3a 0 0 0.7 D6a1 0 0 0.7 Fla1 0 0 0.5 Fla1b 0 1.8 0 Fla1c 0 0 0.2 Fla1a 5 0 0.5 Flc1a1 0 0 0 Fld 0 0 0 Fld 0 0 0 Flg 5 0 2.1 Fla1 0 0 0 Gla2 0 1.8 0 Gla1 0 0 0 Gla1 0 0 0 Gla1 0 0 0 Gla1 0	D5a2b	0	0	0.9
D6a1 0 0 0.7 F1a1 0 0 0.5 F1a1b 0 1.8 0 F1a1c 0 0 0.2 F1b1+@152 0 3.6 0.2 F1c1a1a 5 0 0.5 F1c1a2 0 0 1.6 F1d 5 0 0.9 F1d1 0 0 2.1 F1f 0 0 0.2 F1g 5 0 2.1 F2a1 0 0 0.5 F2g 0 1.8 0 G1a2 0 0 0.2 G1c 0 1.8 0 G2a1 5 5.5 1.1 G2a1+152 0 1.8 0 G2a1+ 5 0 0 0 G2a1+ 5 1.8 0 0 G2a1 5 1.8 0	D5a3a	0	0	0.7
F1a1 0 0 0.5 F1a1b 0 1.8 0 F1a1c 0 0 0.2 F1b1+@152 0 3.6 0.2 F1c1a1a 5 0 0.5 F1c1a2 0 0 1.6 F1d 5 0 0.9 F1d1 0 0 2.1 F1g 5 0 0.2 F1g 5 0 0.2 F1g 5 0 0.2 F1g 5 0 0.2 G1a2 0 0 0.5 F2g 0 1.8 0 G1a2 0 0 0.2 G1c 0 1.8 0 G2a1 5 5.5 1.1 G2a1+152 0 1.8 0 G2a1+ 5 0 0 G2a1+ 5 0 0 G2a1+ 5 1.8 0 G2b1a2 0 1.8 0 </td <td>D6a1</td> <td>0</td> <td>0</td> <td>0.7</td>	D6a1	0	0	0.7
F1a1b 0 1.8 0 F1a1c 0 0 0.2 F1a1c 0 3.6 0.2 F1b1+@152 0 3.6 0.2 F1c1a1a 5 0 0.5 F1c1a2 0 0 1.6 F1d 5 0 0.9 F1d1 0 0 2.1 F1g 5 0 2.1 F2g 0 1.8 0 G1a2 0 0 0.5 F2g 0 1.8 0 G1a2 0 0 0.2 G1c 0 1.8 0 G2a1 5 5.5 1.1 G2a1+16189 0 0 0 G2a1f 0 3.6 0 G2a4 0 3.6 0 G2a4 0 0 0 0 G3a1 0 0 0 0 G3a1 0 0 0 0 G3a1 <th< td=""><td>F1a1</td><td>0</td><td>0</td><td>0.5</td></th<>	F1a1	0	0	0.5
Flaic 0 0 0.2 Floit+@152 0 3.6 0.2 Flciala 5 0 0.5 Flciala 5 0 0.9 Fld 5 0 0.9 Fld 0 0 2.1 Flf 0 0 0.2 Flg 5 0 2.1 F2a1 0 0 0.5 F2g 0 1.8 0 G1a2 0 0 0.2 G1c 0 1.8 0 G1a2 0 0 0.2 G1c 0 1.8 0 G2a1 5 5.5 1.1 G2a1+16189 0 0 0 G2a14 0 3.6 0 G2a4 0 3.6 0 G2a4 0 0 0 0 G3a1 0 0 0 0 G3a1 0 0 0 0 G3b 0 <td>F1a1b</td> <td>0</td> <td>1.8</td> <td>0</td>	F1a1b	0	1.8	0
F1b1+@152 0 3.6 0.2 F1c1a1a 5 0 0.5 F1c1a2 0 0 1.6 F1d 5 0 0.9 F1d1 0 0 2.1 F1f 0 0 0.2 F1g 5 0 2.1 F2a1 0 0 0.5 F2g 0 1.8 0 G1a2 0 0 0.2 G1c 0 1.8 0 G2a+152 0 1.8 0 G2a1 5 5.5 1.1 G2a1+16189 0 0 0.2 G2a1 5 1.8 0 G2a44 0 3.6 0 G2a44 0 3.6 0 G2a4 0 1.8 0 G3a1 0 0 0.5 G3a1 0 0 0.5 G3b 0 0 0.5 G3b1 0 0 0.2	Flalc	0	0	0.2
F1c1a1a 5 0 0.5 F1c1a2 0 0 1.6 F1d 5 0 0.9 F1d1 0 0 2.1 F1f 0 0 0.2 F1g 5 0 2.1 F2a1 0 0 0.5 F2g 0 1.8 0 G1a2 0 0 0.2 G1c 0 1.8 0 G1c2 0 1.8 0 G2a1 5 5.5 1.1 G2a1+152 0 1.8 0 G2a1 5 5.5 1.1 G2a1+16189 0 0 0 G2a4 0 3.6 0 G2a4 0 3.6 0 G3a1 0 0 0.5 G3a2 0 1.8 0 G3b1 0 0 0.5 G3b1 0 0 0.5 G3b1 0 0 0.5 <td>F1b1+@152</td> <td>0</td> <td>3.6</td> <td>0.2</td>	F1b1+@152	0	3.6	0.2
Ficial 0 0 1.6 Fid 5 0 0.9 Fid1 0 0 2.1 Fif 0 0 0.2 Fig 5 0 2.1 F2al 0 0 0.2 Fig 5 0 2.1 F2al 0 0 0.5 F2g 0 1.8 0 G1a2 0 0 0.2 G1c 0 1.8 0 G1c2 0 1.8 0 G2a+152 0 1.8 0 G2a1 5 5.5 1.1 G2a1+16189 0 0 0 G2a44 0 3.6 0 G2b1a2 0 1.8 0 G3a1 0 0 0.5 G3a2 0 0.5 0 G3b 0 0 0.5 G3b1 0 0 0.5 G3b1 0 0 0.5	F1c1a1a	5	0	0.5
F1d 5 0 0.9 F1d1 0 0 2.1 F1f 0 0 0.2 F1g 5 0 2.1 F2a1 0 0 0.5 F2g 0 1.8 0 G1a2 0 0 0.2 G1c 0 1.8 0 G1c2 0 1.8 0 G2a+152 0 1.8 0 G2a1 5 5.5 1.1 G2a1+16189 0 0 0.2 G2a1h 5 0 0 G2a1h 5 1.1 0 G2a1+16189 0 0 0.2 G2a1h 5 0 0 G2a1h 5 1.8 0 G2b1a2 0 1.8 0 G3a1 0 0 0.5 G3a2 0 1.8 0 G3b 0 0 0.5 G3b1 0 0 0 <th< td=""><td>F1c1a2</td><td>0</td><td>0</td><td>1.6</td></th<>	F1c1a2	0	0	1.6
F1d1 0 0 2.1 F1f 0 0 0.2 F1g 5 0 2.1 F2a1 0 0 0.5 F2g 0 1.8 0 G1a2 0 0 0.2 G1c 0 1.8 0 G1c2 0 1.8 0 G2a+152 0 1.8 0 G2a1 5 5.5 1.1 G2a1+16189 0 0 0.2 G2a1h 5 0.5 0 0 G2a1h 5 1.8 0 0 G2a1h 5 0 0 0 G2a1h 5 0 0 0 G2a1h 5 0 0 0 G2a1h 0 3.6 0 0 G2a1 5 1.8 0 0 G2a1 0 1.8 0 0 G3a1 0 0 0 0 0	F1d	5	0	0.9
F1f 0 0 0.2 F1g 5 0 2.1 F2a1 0 0 0.5 F2g 0 1.8 0 G1a2 0 0 0.2 G1c 0 1.8 0 G1c2 0 1.8 0 G2a+152 0 1.8 0 G2a+152 0 1.8 0 G2a1 5 5.5 1.1 G2a1+16189 0 0 0.2 G2a1f 0 3.6 0 G2a1h 5 0 0 G2a1h 5 0 0 G2a1h 0 3.6 0 G2a1h 0 3.6 0 G2a1h 0 0 0.2 G3a1 0 0 0.2 G3a1 0 0 0.5 G3a2 0 1.8 0 G3b1 0 0 0.5 G3b1 0 0 0.2 <td>F1d1</td> <td>0</td> <td>0</td> <td>2.1</td>	F1d1	0	0	2.1
F1g 5 0 2.1 F2a1 0 0 0.5 F2g 0 1.8 0 G1a2 0 0 0.2 G1c 0 1.8 0 G1c2 0 1.8 0 G2a+152 0 1.8 0 G2a1 5 5.5 1.1 G2a1+16189 0 0 0.2 G2a1f 0 3.6 0 G2a1h 5 0 0 G2a1h 5 1.8 0 G2a1h 5 1.8 0 G2b1a2 0 1.8 0 G3a1 0 0 0.5 G3a2 0 1.8 0 G3b1 0 0 0.5	F1f	0	0	0.2
F2a1 0 0 0.5 F2g 0 1.8 0 G1a2 0 0 0.2 G1c 0 1.8 0 G1c2 0 1.8 0 G2a+152 0 1.8 0 G2a1 5 5.5 1.1 G2a1+16189 0 0 0.2 G2a1f 0 3.6 0 G2a1h 5 0 0 G2a1a 0 1.8 0 G3a1 0 0 0.2 G3a1 0 0 0 0.5 G3a2 0 1.8 0 0 G3b1 0 0 0 0.2 H10a1 0	F1g	5	0	2.1
F2g 0 1.8 0 G1a2 0 0 0.2 G1c 0 1.8 0 G1c2 0 1.8 0 G2a+152 0 1.8 0 G2a1 5 5.5 1.1 G2a1+16189 0 0 0.2 G2a1f 0 3.6 0 G2a1h 5 0 0 G2a1h 0 3.6 0 G2a1h 0 1.8 0 G2a1h 0 0 0 G2a4 0 3.6 0 G3a1 0 0 0.2 G3a2 0 1.8 0 G3b1 0 0 0.9 H10a1 0 0 0.2	F2a1	0	0	0.5
G1a2 0 0 0.2 G1c 0 1.8 0 G1c2 0 1.8 0 G2a+152 0 1.8 0 G2a1 5 5.5 1.1 G2a1+16189 0 0 0.2 G2a1f 0 3.6 0 G2a4 0 3.6 0 G2a4 0 3.6 0 G2a4 0 3.6 0 G2b1a2 0 1.8 0 G2b1a2 0 1.8 0 G3a1 0 0 0.2 G3a1 0 0 0.5 G3b 0 0 0.5 G3b1 0 0 0.9 H10a1 0 0 0.2	F2g	0	1.8	0
G1c 0 1.8 0 G1c2 0 1.8 0 G2a+152 0 1.8 0 G2a1 5 5.5 1.1 G2a1+16189 0 0 0.2 G2a1f 0 3.6 0 G2a1h 5 0 0 G2a4 0 3.6 0 G2b1a2 0 1.8 0 G3a1 0 0 0.2 G3a1 0 0 0 0.5 G3b 0 0 0 0.9 H10a1 0 0 0.2	G1a2	0	0	0.2
G1c2 0 1.8 0 G2a+152 0 1.8 0 G2a1 5 5.5 1.1 G2a1+16189 0 0 0.2 G2a1f 0 3.6 0 G2a1h 5 0 0 G2a4 0 3.6 0 G2b1a2 0 1.8 0 G3a1 0 0 0.2 G3a1 0 0 0.5 G3a2 0 1.8 0 G3b1 0 0 0.9 H10a1 0 0 0.2	G1c	0	1.8	0
G2a+152 0 1.8 0 G2a1 5 5.5 1.1 G2a1+16189 0 0 0.2 G2a1f 0 3.6 0 G2a1h 5 0 0 G2a4 0 3.6 0 G2b1a2 0 1.8 0 G2b2a 5 1.8 0 G3a1 0 0 0.2 G3a1a 0 0 0.5 G3b 0 0 0.5 G3b1 0 0 0.9 H10a1 0 0 0.2	G1c2	0	1.8	0
G2a1 5 5.5 1.1 G2a1+16189 0 0 0.2 G2a1f 0 3.6 0 G2a1h 5 0 0 G2a4 0 3.6 0 G2b1a2 0 1.8 0 G2b2a 5 1.8 0 G3a1 0 0 0.2 G3a2 0 1.8 0 G3b 0 0 0.5 G3b1 0 0 0.9 H10a1 0 0 0.2	G2a+152	0	1.8	0
G2a1+16189 0 0 0.2 G2a1f 0 3.6 0 G2a1h 5 0 0 G2a1h 5 0 0 G2a4 0 3.6 0 G2b1a2 0 1.8 0 G2b2a 5 1.8 0 G3a1 0 0 0.2 G3a1a 0 0 0.5 G3b 0 0 0.5 G3b1 0 0 0.9 H10a1 0 0 0.2	G2a1	5	5.5	1.1
G2a1f 0 3.6 0 G2a1h 5 0 0 G2a4 0 3.6 0 G2b1a2 0 1.8 0 G2b2a 5 1.8 0 G3a1 0 0 0.2 G3a1a 0 0 0.5 G3b 0 0 0.5 G3b1 0 0 0.9 H10a1 0 0 0.2	G2a1+16189	0	0	0.2
G2a1h 5 0 0 G2a4 0 3.6 0 G2b1a2 0 1.8 0 G2b2a 5 1.8 0 G3a1 0 0 0.2 G3a1a 0 0 0.5 G3a2 0 1.8 0 G3b 0 0 0.5 G3b1 0 0 0.9 H10a1 0 0 0.2	G2a1f	0	3.6	0
G2a4 0 3.6 0 G2b1a2 0 1.8 0 G2b2a 5 1.8 0 G3a1 0 0 0.2 G3a1a 0 0 0.5 G3a2 0 1.8 0 G3b 0 0 0.5 G3b1 0 0 0.9 H10a1 0 0 0.2	G2a1h	5	0	0
G2b1a2 0 1.8 0 G2b2a 5 1.8 0 G3a1 0 0 0.2 G3a1a 0 0 0.5 G3a2 0 1.8 0 G3b 0 0 0.5 G3b1 0 0 0.9 H10a1 0 0 0.2	G2a4	0	3.6	0
G2b2a 5 1.8 0 G3a1 0 0 0.2 G3a1a 0 0 0.5 G3a2 0 1.8 0 G3b 0 0 0.5 G3b1 0 0 0.9 H10a1 0 0 0.2	G2b1a2	0	1.8	0
G3a1 0 0 0.2 G3a1a 0 0 0.5 G3a2 0 1.8 0 G3b 0 0 0.5 G3b1 0 0 0.9 H10a1 0 1.8 0	G2b2a	5	1.8	0
G3a1a 0 0 0.5 G3a2 0 1.8 0 G3b 0 0 0.5 G3b1 0 0 0.9 H10a1 0 0 0.2	G3a1	0	0	0.2
G3a2 0 1.8 0 G3b 0 0 0.5 G3b1 0 0 0.9 H10a1 0 1.8 0	G3a1a	0	0	0.5
G3b 0 0 0.5 G3b1 0 0 0.9 H10a1 0 0 0.2	G3a2	0	1.8	0
G3b1 0 0 0.9 H10a1 0 1.8 0	G3b	0	0	0.5
H10a1 0 0 0.2 M10a1 0 18 0	G3b1	0	0	0.9
M10a1 0 1.8 0	H10a1	0	0	0.2
	M10a1	0	1.8	0
M10a1b 0 0 05	M10a1b	0	0	0.5
M11a1 0 0 0.5	W11a1	ů 0	0	0.5
M11a2 5 0 0.9	W11a2	5	0	0.9
M12a1b 0 0 0.5	W12a1b	0	0	0.5
M13a1b 0 0 09	W13a1b	0	0	0.9
M13a2 0 0 27	M1392	0	0	0.2 2 7

M33b1	0	0	1.8
M38	0	0	0.2
M3d1a1	0	0	0.7
M49e	0	0	0.2
M54	0	0	0.5
M5b2b1a	0	0	0.7
M5c2	0	0	0.2
M60a1	0	0	0.2
M60a2	0	0	0.5
M62a	0	0	0.5
M62b	0	0	0.2
M62b+204	0	0	0.5
M62b1	0	0	2.1
M62b2	0	0	0.7
M70	0	0	0.2
M7b1a1+(16192)	0	0	0.9
M9a	0	1.8	0.2
M9a1a	5	0	1.6
M9a1a1c1a	0	0	0.2
M9a1a1c1b1a	15	0	11.4
M9a1a1c1b1a1	0	0	1.6
M9a1a1c1b1a2	0	0	0.5
M9a1a2	5	0	2.3
M9a1b	0	0	0.7
M9a1b+150	0	0	2.3
M9a1b1	0	0	6.2
M9a1b1c	0	0	2.7
M9a1b2	0	0	0.2
N11a1	0	0	0.5
N9a9	0	1.8	0
R	0	1.8	0
R+16189	0	1.8	0.2
R11b1b	0	0	0.2
R22	0	0	0.2
U2a2	0	0	0.2
U2b1	0	0	0.2
U2b1a	0	0	0.7
U5a1a1	5	0	0
U7a3a	0	0	0.5
W	0	0	0.2
Y1a	Õ	0	0.2
73 a	ů 0	ů 0	0.2
 73a1a	5	0	0
Z3h	0	0	1.8
74 919	5	1.8	0
етата 77	0	1.0 0	0.2
	v	U	0.2

	North Asia	Central Asia	China.Xinjiang	China	LTP	HTP	China.Tibet	Nepal	Northeast India	South Asia	Myanmar	MSEA	Austronesian
North Asia	52.63	7.24	19.08	4.61	1.32	0.66	1.32	0.66	1.32	7.89	0.66	2.63	0.00
Central Asia	11.11	16.16	44.44	0.00	0.00	0.00	0.00	2.02	0.00	21.21	2.02	3.03	0.00
Xinjiang	8.92	13.54	26.77	8.31	3.08	1.23	6.46	0.62	1.85	17.54	0.92	10.15	0.62
China	1.96	0.00	7.56	24.37	5.60	2.52	11.48	0.84	3.08	1.68	1.68	32.77	6.44
LTP	2.17	0.00	10.87	21.74	15.22	4.35	16.30	1.09	6.52	2.17	5.43	10.87	3.26
НТР	1.92	0.00	7.69	17.31	7.69	1.92	26.92	9.62	7.69	5.77	1.92	11.54	0.00
Tibet	0.51	0.00	5.37	10.49	3.84	3.58	31.71	10.74	11.00	1.53	2.56	17.14	1.53
Nepal	0.81	1.63	1.63	2.44	0.81	4.07	34.15	21.14	8.94	13.01	3.25	7.32	0.81
Northeast India	0.84	0.00	2.52	4.62	2.52	1.68	18.07	4.62	48.32	4.20	3.36	8.40	0.84
South Asia	1.96	3.43	9.30	0.98	0.33	0.49	0.98	2.61	1.63	73.41	1.14	3.75	0.00
Myanmar	0.82	1.64	2.46	4.92	4.10	0.82	8.20	3.28	6.56	5.74	22.95	37.70	0.82
MSEA	0.41	0.30	3.34	11.85	1.01	0.61	6.79	0.91	2.03	2.33	4.66	62.72	3.04
Austronesian	0.00	0.00	0.48	5.57	0.73	0.00	1.45	0.24	0.48	0.00	0.24	7.26	83.54

 Table S6. Haplogroups (top) and haplotypes (bottom) shared among populations

	North Asia	Central Asia	China.Xinjiang	China	LTP	HTP	China.Tibet	Nepal	Northeast India	South Asia	Myanmar	MSEA	Austronesian
North Asia	94.55	0.00	2.73	0.00	0.00	0.00	1.36	0.00	0.68	0.68	0.00	0.00	0.00
Central Asia	0.00	88.52	10.04	0.00	0.00	0.00	0.00	0.00	0.00	1.43	0.00	0.00	0.00
China.Xinjiang	1.63	2.86	87.75	1.23	0.41	0.00	1.23	0.00	0.00	3.68	0.00	0.82	0.41
China	0.00	0.00	1.02	89.43	0.34	0.00	1.36	0.00	0.00	0.34	0.00	6.14	1.36
LTP	0.00	0.00	1.86	1.86	85.11	1.86	9.31	0.00	0.00	0.00	0.00	0.00	0.00
НТР	0.00	0.00	0.00	0.00	5.00	90.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00
China.Tibet	0.61	0.00	0.91	1.21	1.51	0.30	88.19	2.72	2.12	0.30	0.00	2.12	0.00
Nepal	0.00	0.00	0.00	0.00	0.00	0.00	9.30	84.51	2.07	1.03	0.00	3.10	0.00
Northeast Asia	0.57	0.00	0.00	0.00	0.00	0.00	4.01	1.15	93.13	0.00	0.00	1.15	0.00
South Asia	0.18	0.18	1.63	0.18	0.00	0.00	0.18	0.18	0.00	97.10	0.00	0.36	0.00
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	89.62	10.38	0.00
MSEA	0.00	0.00	0.19	1.68	0.00	0.00	0.65	0.28	0.19	0.19	1.03	95.33	0.47
Austronesian	0.00	0.00	0.34	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.71	96.59

Population 1	Mean age	Population 2	Mean age	Haplogroup
Between HTP and China.Til HTP Pukagongma 1.0544	bet 2 812	Tibet Deng KT725920	nresent-day	D5a2a
Between HTP and LTP	_,01_		process any	20020
HTP_Xiaoenda_L3222	?	LTP_Lajigai_L3190	?	Z4a1a
Between LTP and China. Tib	pet			
LTP_Mogou_L3218	?	Tibet_Lhoba_KT726067	present-day	D5a2a1b
LTP_Mogou_L3218	?	Tibet_Lhoba_KT726094	present-day	D5a2a1b
LTP_Mogou_L3218	?	Tibet_Lhoba_KT726097	present-day	D5a2a1b
LTP_Mogou_L3218	?	Tibet_Lhoba_KT726115	present-day	D5a2a1b
LTP_Yingpanshan_L0526	?	Tibet_Deng_KT725924	present-day	D4e1a2
LTP_Zongri_D1952	4,750	Tibet_Monpa_KT726144	present-day	D4j1b
LTP_Dazhuang_L3223	4,412	Tibet_Tingri_KT726030	present-day	G2a1
LTP_Dazhuang_L3223	4,412	Tibet_Deng_KT725937	present-day	G2a1
LTP_Hualongqunke_L3259	?	Tibet_Tingri_KT726018	present-day	A15a
Between LTP and China				
LTP_Hupo_L1130	3,989	South China_Hakka_HAK19	present-day	D4b2b
Between LTP and China.Xin	ijiang			
LTP_Dazhuang_L3223	4,112	Xinjiang_Uygur_MF523002	present-day	G2a1
LTP_Dazhuang_L3223	4,112	Xinjiang_Uygur_MF523003	present-day	G2a1

Table S7. Haplotypes shared between populations

Haplotype used is the mtDNA coding region sequence

Mean age, years ago, are calibrated radiocarbon dates are from Table S1

Classification*	Source of variance	d.f.	Variance components	%Variance	Fixation index	P-value**
(HTP, LTP), NA, CA, XJ, CH, TB, NP, NEI, SA, MM, MSEA, AN	Among groups	10	0.0845	0.42	<i>FCT</i> = 0.00425	0.313
	Among population within groups	2	1.54665	7.78	FSC = 0.07808	< 0.001
	within populations	4726	18.26134	91.8	FST = 0.08200	< 0.001
(HTP, LTP, CN), NA, CA, XJ, TB, NP, NEI, SA, MM, MSEA, AN	Among groups	10	0.90589	4.56	FCT = 0.04556	0.0665
	Among population within groups	2	0.71638	3.6	FSC = 0.03775	< 0.001
	within populations	4726	18.26134	91.84	FST = 0.08159	< 0.001
(HTP, LTP, TB), NA, CA, XJ, CN, NP, NEI, SA, MM, MSEA, AN	Among groups	10	0.78213	3.93	FCT = 0.03933	0.0831
	Among population within groups	2	0.84089	4.23	FSC = 0.04402	< 0.001
	within populations	4726	18.26134	91.84	FST = 0.08162	< 0.001
(HTP, LTP, MM), NA, CA, XJ, CN, TB, NP, NEI, SA, MSEA, AN	Among groups	10	0.57496	2.89	FCT = 0.02892	0.139
	Among population within groups	2	1.04573	5.26	FSC = 0.05416	< 0.001
	within populations	4726	18.26134	91.85	FST = 0.08152	< 0.001
(HTP, LTP, NEI), NA, CA, XJ, CN, TB, NP, SA, MM, MSEA, AN	Among groups	10	0.52247	2.63	FCT = 0.02628	0.145
	Among population within groups	2	1.09866	5.53	FSC = 0.05675	< 0.001
	within populations	4726	18.26134	91.85	FST = 0.08154	< 0.001
(HTP, LTP, SA), NA, CA, XJ, CN, TB, NP, NEI, MM, MSEA, AN	Among groups	10	0.46907	2.36	FCT = 0.02359	0.188
	Among population within groups	2	1.15355	5.8	FSC = 0.05942	< 0.001
	within populations	4726	18.26134	91.84	FST = 0.08160	< 0.001
(HTP, LTP, AN), NA, CA, XJ, CN, TB, NP, NEI, SA, MM, MSEA	Among groups	10	0.03809	0.19	FCT = 0.00192	0.353
	Among population within groups	2	1.58712	7.98	FSC = 0.07996	< 0.001
	within populations	4726	18.26134	91.83	FST = 0.08172	< 0.001
(HTP, LTP, XJ), NA, CA, CN, TB, NP, NEI, SA, MM, MSEA, AN	Among groups	10	0.02064	0.1	FCT = 0.00104	0.406
	Among population within groups	2	1.59948	8.05	FSC = 0.08053	< 0.001
	within populations	4726	18.26134	91.85	FST = 0.08149	< 0.001
(HTP, LTP, MSEA), NA, CA, XJ, CN, TB, NP, NEI, SA, MM, AN	Among groups	10	-0.04193	-0.21	FCT = -0.00211	0.405
	Among population within groups	2	1.65999	8.35	FSC = 0.08333	< 0.001
	within populations	4726	18.26134	91.86	FST = 0.08139	< 0.001
(HTP, LTP, NP), NA, CA, XJ, CN, TB, NEI, SA, MM, MSEA, AN	Among groups	10	-0.05304	-0.27	FCT = -0.00267	0.408
	Among population within groups	2	1.67304	8.42	FSC = 0.08393	< 0.001
	within populations	4726	18.26134	91.85	FST = 0.08148	< 0.001
(HTP, LTP, NA), CA, XJ, CN, TB, NP, NEI, SA, MM, MSEA, AN	Among groups	10	-0.51686	-2.6	FCT = -0.02600	0.647
	Among population within groups	2	2.13628	10.75	FSC = 0.10473	< 0.001
	within populations	4726	18.26134	91.85	FST = 0.08146	< 0.001
(HTP, LTP, CA), NA, XJ, CN, TB, NP, NEI, SA, MM, MSEA, AN	Among groups	10	-1.15716	-5.82	FCT = -0.05821	0.873
	Among population within groups	2	2.77633	13.97	FSC = 0.13197	< 0.001
	within populations	4726	18.26134	91.86	FST = 0.08145	< 0.001

Table S8. Systematic comparison of the best grouping with ancient plateau populations using analysis of molecular variance (AMOVA)

*Populations within parenthesis is treated as one group Abbreviations: North Asia (NA), Central Asia (CA), Xinjiang (XJ), China (CN), Tibet (TB), Nepal (NP), Northeast India (NEI), South Asia (SA), Myanmar (MM), Mainland Southeast Asia (MSEA), Austronesian (AN)

**per 10,000 permutations

Haplogroup	n	aDNA with	th <i>n</i> aDNA with <i>n</i> Present-day individuals in		Present-day individuals in	Coalescence age, years ago	Proportion that	
		same haplogroup		radiocarbon dating		the same haplogroup*	(mean, 95% HPD)	are Tibetan (%)
Within LTP								
A17	2	Hupo, Hualongqunke	1	Hualongqunke	23	Miao(1), Yi(1), Tingri(1), Lhoba(3), Kyrgyz(1),	21,195 (29,298 - 13,551)	17
						Blang(2), Lawa(7), Mon(1), HaNhi(2), PhuLa(4)		
C7b	1	Shangluzhuang	1	Shangluzhuang	4	Naxi(2), Gallong(2)	14,469 (23,203 - 6,645)	0
D4	3	Yingpanshan, Zongri,	2	Zongri, Wenpuju	26	Han(1), Daur(1), Tu(1), Dai(1), Sherpa(1),	25,492 (36,880 - 16,680)	4
		Wenpuju				Uygur(1), Tajik(2), Toto(1), Bamar(1), Hakka(1),		
						Blang(1), Mueang(4), Lawa(3), Mon(1), Hmong(3),		
						LaChi(2), PhuLa(1)		
D4b2b	3	Hupo, Sanheyi,	1	Hupo	6	Han(1), Tu(1), Xibo(1), Tingri(1), Uygur(1),	19,971 (27,706 – 12,731)	17
		Guidehexi				Khamu(1)		
D4h1c	1	Lajigai	1	Lajigai	9	Tu(1), Tingri(1), Deng(7)	20,870 (31,485 - 12,180)	89
D4i	8	Zongri x8	8	Zongri x8	4	Miao(2), Japanese(2)	9,544 (16,454 - 5,040)	0
F1b1+@152	2	Heodong, Sanheyi	2	Heodong, Sanheyi	2	Tingri(1), Uygur(1)	20,514 (29,962 - 11,874)	50
R	1	Wuba	1	Wuba	3	Naga(1), Makatao(2)	54,726 (71,776 - 38,040)	0
R+16189	1	Qijiaping	1	Qijiaping	72	Han(3), Oroqen(1), Miao(1), Naxi(2), Tujia(2),	44,854 (61,796 – 32,056)	1
						Deng(1), Uygur(1), Tajik(1), Burmans(1),		
						Hakka(1), Minnan(2), Tai(1), Lao(1), Mon(2),		
						Phuan(1), CoLao(1), Dao(6), Hmong(6), Kinh(2),		
						LaChi(9), LaHu(10), LoLo(14), Tay(3)		

Table S9. Summary of 21 ancient plateau-related haplogroups selected for network analysis and Bayesian coalescence age estimates

Between HTP and LTP

D4j1b	2	Zongri, Chokhopani	2	Zongri, Chokhopani	11	Tingri(1), Monpa(1), Lhoba(1), Kyrgyz(2),	10,508 (16,034 - 5,657)	27
						Sherpa(1), Wanchoo(2), Mueang(1), Mon(1),		
						Paluang(1)		
G2a1	4	Zongri, Zongri,	3	Zongri, Dazhuang,	7	Daur(1), Tingri(2), Deng(2), Lhoba(1), Bamar(1)	15,970 (22,667 – 10,186)	71
		Dazhuang, Xiaoenda		Xiaoenda				

Total individuals	41		36		299			
23818	1	wiedłak	1	webrak	3	HaNhi(1)	0,190 (13,333 - 3,718)	U
73.1.0	1	Mabrak	1	Mahrak	5	Lhoba(2)	8 108 (12 252 2 719)	0
M9a1a2	1	Mebrak	1	Mebrak	11	Han(1), Nagqu(3), Shigatse(1), Sherpa(3), Deng(1),	9,883 (15,609 – 4,889)	91
		_		-		Lhoba(4), Nepal Sherpa(2), Hazara(1), Buryat(1)		
		Samdzong		Samdzong		Tibetan Sherpa(10), Tingri(19), Monpa(3), Deng(1),		
M9a1a1c1b1a	3	Chaxiutang, Mebrak,	3	Chaxiutang, Mebrak,	55	Tu(1), Tibetan(2), Lhasa(2), Nagqu(5), Shigatse(4),	6,048 (7,890 - 4,353)	91
M9a1a	1	Samdzong	1	Samdzong	9	Tingri(2), Deng(2), Lhoba(3), Sherpa(1), Minnan(1)	10,275 (17,503 – 4,124)	78
						HaNhi(1)		
M11a2	1	Yushu	1	Yushu	7	Yi(2), Chamdo(1), Sherpa(1), Monpa(1), Deng(1),	26,744 (41,773 – 13,128)	57
						Phuan(5), Kinh(3), PhuLa(1)		
F1g	1	Xiaoenda	1	Xiaoenda	21	Dai(1), Tingri(6), Lhoba(3), Kyrgyz(1), Hazara(1),	9,684 (14,544 - 5,883)	43
						Japanese(1), Minnan(1), Mon(1), PaThen(5)		
F1d	1	Samdzong	1	Samdzong	14	Hezhen(1), Deng(1), Lhoba(3), Kyrgyz(1),	16,152 (22,540 - 9,878)	29
Flclala	1	Samdzong	1	Samdzong	3	Yi(1), Sherpa(1), Tingri(1)	11,949 (19,998 – 4,619)	67
D5a2a1	1	Pukagongma	1	Pukagongma	5	Sherpa(1), Tingri(1), Deng(1), Lawa(1), HaNhi(1)	15,049 (22,194 - 8,735)	60
Within HTP								

Gallong(1), Kathodi(1)

19,085 (29,021 - 10,837)

0

*Parenthesis indicates the number of individuals in that population; their associated placement in the network is shown in Figure S1.

2 Zongri, Butaxiongqu 2 Zongri, Butaxiongqu 2

G2b2a

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