S10 Table. Two-way admixture modeling of the Himalayan Tibetans using the qpAdm program. Sherpas from the Khumbu region and a South Asian population are used as sources. All four sub-district groups are adequately approximated by the two-way model ($P_{2way} \geq 0.05$). $Coef_1$, $Coef_2$ and SE columns represent estimated ancestry proportions from Ref_1 (Sherpa) and Ref_2 (South Asian), as well as their associated standard errors. Although the South Asian ancestry proportion is small (2.5-6.2%), it is necessary to explain the Himalayan Tibetans, as shown by the insufficiency of the Sherpa-only model ($P_{1way} \ll 0.05$).

Target	Ref_1	Ref_2	P_{2way}	P_{1way}	$Coef_1$	$Coef_2$	SE
Nubri	Sherpa	Brahui	0.853	4.92×10^{-27}	0.961	0.039	0.003
		Kalash	0.826	5.94×10^{-27}	0.959	0.041	0.004
		Pathan	0.888	3.57×10^{-27}	0.958	0.042	0.004
Tsum	Sherpa	Brahui	0.385	3.02×10^{-12}	0.974	0.026	0.004
		Kalash	0.263	6.14×10^{-12}	0.973	0.027	0.004
		Pathan	0.310	4.22×10^{-12}	0.972	0.028	0.004
Lower Mustang	Sherpa	Brahui	0.618	2.82×10^{-59}	0.943	0.057	0.003
		Kalash	0.280	1.54×10^{-58}	0.940	0.060	0.004
		Pathan	0.505	2.87×10^{-59}	0.938	0.062	0.004
Upper Mustang	Sherpa	Brahui	0.487	3.31×10^{-16}	0.975	0.025	0.003
		Kalash	0.380	5.81×10^{-16}	0.974	0.026	0.003
		Pathan	0.410	3.93×10^{-16}	0.973	0.027	0.003