## Paper title

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#### **Supporting Information**

- Tables with data presented in figures 5 and 6  $\,$
- Table with Tajima's D for syn, mis, lof mutations for all, within, or outside of domains

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#### **Supplementary Tables**

Table S1: Thousand Genomes Project population descriptions for populations used in this study.

Code	Description	Region
ESN GWD LWK MSL YRI	Esan in Nigeria Gambian in Western Divisions in the Gambia Luhya in Webuye, Kenya Mende in Sierra Leone Yoruba in Ibadan, Nigeria	Africa Africa Africa Africa Africa
CEU GBR FIN IBS TSI	Utah Residents (CEPH) with Northern and Western European Ancestry British in England and Scotland Finnish in Finland Iberian Population in Spain Toscani in Italia	Europe Europe Europe Europe
CDX CHB CHS JPT KHV	Chinese Dai in Xishuangbanna, China Han Chinese in Beijing, China Southern Han Chinese Japanese in Tokyo, Japan Kinh in Ho Chi Minh City, Vietnam	East Asia East Asia East Asia East Asia

Table S2: Tamija's D for classes of coding mutations, both within annotated domains and outside of domains.

Population	Mutation.type	Region	Tajima.sD.
ESN	Synonymous	All	-0.882
	•	In domain	-0.854
		Not in domain	-0.921
	Missense	All	-1.414
		In domain	-1.535
		Not in domain	-1.293
	Loss of function	All	-1.483
		In domain	-2.156
		Not in domain	-1.282
GWD	Synonymous	All	-1.011
	v	In domain	-0.981
		Not in domain	-1.052
	Missense	All	-1.566
		In domain	-1.678
		Not in domain	-1.452
	Loss of function	All	-1.697
		In domain	-2.328
		Not in domain	-1.501
LWK	Synonymous	All	-1.109
	v	In domain	-1.088
		Not in domain	-1.139
	Missense	All	-1.589
		In domain	-1.700
		Not in domain	-1.477
	Loss of function	All	-1.666

Table S2: Tamija's D for classes of coding mutations, both within annotated domains and outside of domains. (continued)

Population	Mutation.type	Region	Tajima.sD.
		In domain	-2.278
		Not in domain	-1.477
MSL	Synonymous	All	-0.983
		In domain	-0.959
	3.5	Not in domain	-1.017
	Missense	All	-1.501
		In domain Not in domain	-1.603 1.400
	Loss of function	All	-1.400 -1.559
	Loss of function	In domain	-2.303
		Not in domain	-1.332
YRI	Synonymous	All	-0.928
	v	In domain	-0.898
		Not in domain	-0.971
	Missense	All	-1.467
		In domain	-1.586
		Not in domain	-1.348
	Loss of function	All	-1.624
		In domain	-2.237
		Not in domain	-1.424
CEU	Synonymous	All	-0.417
		In domain	-0.392
	м.	Not in domain	-0.452
	Missense	All In domain	-1.248
		Not in domain	-1.404 -1.082
	Loss of function	All	-1.501
	Loss of fulletion	In domain	-2.196
		Not in domain	-1.280
FIN	Synonymous	All	-0.058
		In domain	-0.047
		Not in domain	-0.075
	Missense	All	-0.883
		In domain	-1.048
	T C.C	Not in domain	-0.710
	Loss of function	All In domain	-1.200
		Not in domain	-2.034 -0.906
GBR	Synonymous	All	-0.319
GDIL	Synonymous	In domain	-0.319
		Not in domain	-0.345
	Missense	All	-1.120
		In domain	-1.276
		Not in domain	-0.954
	Loss of function	All	-1.313
		In domain	-2.178
		Not in domain	-0.997

Table S2: Tamija's D for classes of coding mutations, both within annotated domains and outside of domains. (continued)

Population	Mutation.type	Region	Tajima.sD.
IBS	Synonymous	All	-0.689
		In domain	-0.664
		Not in domain	-0.724
	Missense	All	-1.424
		In domain	-1.560
		Not in domain	-1.279
	Loss of function	All	-1.636
		In domain	-2.349
		Not in domain	-1.378
TSI	Synonymous	All	-0.650
		In domain	-0.625
		Not in domain	-0.685
	Missense	All	-1.422
		In domain	-1.568
		Not in domain	-1.266
	Loss of function	All	-1.655
		In domain	-2.349
		Not in domain	-1.397
CDX	Synonymous	All	-0.374
		In domain	-0.366
		Not in domain	-0.385
	Missense	All	-1.179
		In domain	-1.323
		Not in domain	-1.026
	Loss of function	All	-1.360
		In domain	-2.194
		Not in domain	-1.062
CHB	Synonymous	All	-0.598
		In domain	-0.593
		Not in domain	-0.606
	Missense	All	-1.389
		In domain	-1.528
		Not in domain	-1.239
	Loss of function	All	-1.586
		In domain	-2.344
		Not in domain	-1.298
CHS	Synonymous	All	-0.544
		In domain	-0.545
		Not in domain	-0.544
	Missense	All	-1.334
		In domain	-1.499
	T 22	Not in domain	-1.150
	Loss of function	All	-1.559
		In domain	-2.290
		Not in domain	-1.292
$_{ m JPT}$	Synonymous	All	-0.371
		In domain	-0.368

Table S2: Tamija's D for classes of coding mutations, both within annotated domains and outside of domains. (continued)

Population	Mutation.type	Region	Tajima.sD.
		Not in domain	-0.376
	Missense	All	-1.194
		In domain	-1.355
		Not in domain	-1.019
	Loss of function	All	-1.410
		In domain	-2.272
		Not in domain	-1.086
KHV	Synonymous	All	-0.576
		In domain	-0.562
		Not in domain	-0.596
	Missense	All	-1.346
		In domain	-1.473
		Not in domain	-1.210
	Loss of function	All	-1.535
		In domain	-2.294
		Not in domain	-1.269

### Supplementary Figures

- 1) Accuracy of jackknife for varying sample size 2) Repeat of figures 2, 3, and 4 but for average D instead of  $\sigma_d^2$  3)

# Supporting References