

Supp. Table S2 - Distribution of *TP53* variants by protein domains

Variant Category	Pathogenic (P)	Likely Pathogenic (LP)	Possibly Pathogenic (PP)	Likely Benign (LB)		Uncertain Significance (VUS)	Total	
	Non synonymous	Non synonymous	Non synonymous	Synonymous	Non synonymous	Non synonymous	Non synonymous	Synonymous
Protein domain								
Transcriptional activation	0	0	5	16	4	2	11	16
Proline Rich	0	1	0	8	4	1	6	8
Proline Rich/DNA-binding transition	0	0	2	2	0	0	2	2
DNA Binding	18	10	14	23	7	4	53	23
DNA Binding/Oligomerization transition	0	2	3	9	6	1	12	9
Oligomerization	1	1	3	3	7	0	12	3
Oligom./C-Terminal Reg. transition	0	0	1	0	0	0	1	0
C-Terminal Regulatory	0	1	0	1	3	2	6	1
Total	19	15	28	62	31	10	103	62

Tabular representation of Figure 2. According to the NM_000546.5 reference, domains of TP53 were divided in: transcriptional activation (residues 1 to 62), proline-rich region (residues 63-97), DNA-binding domain (residues 109-288), oligomerization domain (residues 319-359), and C-terminal regulatory domain (residues 363-393). Numbers do not include duplicate values for variants detected in more than one database. Nonsynonymous variants include 1 nonframeshift deletion and 1 nonsense variant. Abbreviations: P, pathogenic; LP, likely pathogenic; PP, possibly pathogenic; LB, likely benign; VUS, variant of uncertain significance.

Supp. Table S3 - Distribution of *TP53* variants across different population ancestries

Database	Ancestry	Total Individuals	Variant Classification									
			Pathogenic (P)		Likely Pathogenic (LP)		Possibly Pathogenic (PP)		Likely Benign (LB)		Uncertain Significance (VUS)	
			Number of Individuals	Prevalence	Number of Individuals	Prevalence	Number of Individuals	Prevalence	Number of Individuals	Prevalence	Number of Individuals	Prevalence
ExAC non-TCGA	African/African American	4,533	2	0.0004	1	0.0002	8	0.0018	32	0.0071	1	0.0002
	Latino	5,608	4	0.0007	5	0.0009	6	0.0011	32	0.0057	1	0.0002
	East Asian	3,933	2	0.0005	4	0.0010	2	0.0005	28	0.0071	5	0.0013
	Finnish	3,307	2	0.0006	6	0.0018	4	0.0012	12	0.0036	1	0.0003
	Non-Finnish European	27,173	19	0.0007	56	0.0021	14	0.0005	75	0.0028	0	0.0000
	Other	347	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000
	South Asian	8,204	5	0.0006	5	0.0006	15	0.0018	151	0.0184	0	0.0000
	Total	53,105	34	0.0006	77	0.0014	49	0.0009	330	0.0062	8	0.0002
FLOSSIES	African American	2,559	0	0.0000	2	0.0008	8	0.0031	18	0.0070	2	0.0008
	European American	7,325	1	0.0001	14	0.0019	6	0.0008	26	0.0035	1	0.0001
	Total	9,884	1	0.0001	16	0.0016	14	0.0014	44	0.0045	3	0.0003
WES Controls	European	994	1	0.0010	2	0.0020	1	0.0010	3	0.0030	0	0.0000

Variant distribution across ancestries comprised in each database. Prevalence calculated by the number of individuals within a certain category divided by the total number of individuals of a given ancestry. Abbreviations: WES, Whole-Exome-Sequencing; P, pathogenic; LP, likely pathogenic; PP, possibly pathogenic; LB, likely benign; VUS, variant of uncertain significance.