

**Supplementary Table I.** The genotypes and clinical characteristics of the previous cases and present case with *ACTN4* variants

No.	Sex	Ethnicity	Family history	Age of onset	Manifestations	Renal biopsy	SR	ESKD onset (years)	Transplant	Variants	Protein domain	Year of publication	Ref
1	F	Chinese	No	17	NS, CKD5	NA	NA	Yes	Yes	p Ala165Val	ABD	2022	[4]
2	F	Chinese	No	5	NS	MCN	Yes	NM	NM	p.Gly506Ser	Spectrin	2019	[5]
3	F	Chinese	No	13	NS	NA	Dependence	NM	NM	p.Gly506Ser	Spectrin	2019	[5]
4	M	Chinese	No	15	NS	MCN	No	NM	No	c.1442 + 10G > A	splice site	2019	[5]
5	M	Chinese	No	9	NS	FSGS	irregular	NM	NM	c.2191-4G > A	splice site	2019	[5]
6	M	Chinese	No	13	NS	FSGS	No	NM	No	c.2191-4G > A	splice site	2019	[5]
7	M	Chinese	No	8	NS	FSGS	Yes	NM	NM	p.Asp550Gly and p.Ala772Val	Spectrin and EF-hands	2019	[5]
8	F	Chinese	No	11	NS	FSGS	Yes	NM	NM	p.Asp550Gly and p.Ala772Val	Spectrin and EF-hands	2019	[5]
9	F	American	Yes	15	Proteinuria	FSGS	Yes	Yes	Yes	p.Ser262Phe	ABD	2007	[8]
10	F	American	Yes	16	Proteinuria	FSGS	NM	Yes	NM	p.Ser262Phe	ABD	2007	[8]
11	F	American	Yes	20	Proteinuria	FSGS	NM	Yes	Yes	p.Ser262Phe	ABD	2007	[8]
12	M	American	Yes	<15	Proteinuria	NM	NM	NM	NM	p.Ser262Phe	ABD	2007	[8]
13	F	Caucasian	No	5	NS	FSGS (collapsing)	Yes	Yes	Yes	p.Ser262Phe	ABD	2015	[6]
14	M	Korea	Yes	3	NS	FSGS (collapsing)	Yes	NA	NA	p.Ser262Phe	ABD	2008	[7]
15	F	Korea	Yes	3.7	NS	FSGS	Yes	Yes	Yes	p.Ser262Phe	ABD	2008	[7]
16*	21F+22M	Oklahoma	Yes	NM	Proteinuria/ESKD	FSGS	NM	Some	NM	p.Lys255Glu	ABD	2000	[2]
17*	8F+11M	Canary Islands	Yes	NM	Proteinuria/ESKD	FSGS	NM	Some	NM	p.Thr259Ile	ABD	2000	[2]
18*	3F+1M	California	Yes	NM	Proteinuria/ESKD	FSGS	NM	Some	NM	p.Ser262Pro	ABD	2000	[2]
19	M	Chinese and European	Yes	5	Proteinuria	FSGS	NM	Yes	Yes	p.Trp59Arg	ABD	2005	[3]

ESKD: whether progression to ESKD, F: female, MCN: minimal change nephropathy, NA: not applicable, NM: not mentioned, NS: nephrotic syndrome, M: male, SR: steroid-resistant, \*: indicate all patients in the family.

Supplementary Table I. Continued

No.	Sex	Ethnicity	Family history	Age of onset	Manifestations	Renal biopsy	SR	ESKD onset to ESKD (years)	Transplant	Variants	Protein domain	Year of publication	Ref
20*	F/M	Colombians	Yes	20-30	Proteinuria	8 of 10 have FSGS	NM	6 of 10	NM	p.Ile149del	ABD	2005	[3]
21	F	Caucasian	No	7.6	SRNS	FSGS	Yes	Yes	Yes	p.Val261Glu	ABD	2015	[9]
22	F	Caucasian	No	3.7	SRNS	FSGS	Yes	Yes	No	p.Ile155Thr	ABD	2015	[9]
23	F	German	No	13	ESKD	FSGS	NM	Yes	Yes	p.Gly195Asp	ABD	2016	[10]
24	M	NM	No	4	Proteinuria	FSGS	NM	Yes	Yes	p.Met240Thr	ABD	2023	[11]
25	F	European and American	No	14	NS	FSGS (collapsing)	Yes	Yes	Yes	p.Tyr265His	ABD	2016	[12]
26	NM	Chinese	No	NM	Proteinuria	FSGS	NM	NM	NM	5'UTR	NA	2009	[13]
27	NM	Chinese	No	NM	Proteinuria	FSGS	NM	NM	NM	p.Ser62Thr	ABD	2009	[13]
28	NM	NM	Yes	NM	NS	FSGS	NM	NM	NM	p.Phe153Leu	ABD	2013	[14]
29	NM	NM	Yes	NM	NS	FSGS	NM	NM	NM	p.Glu72Gln	ABD	2013	[14]
30	M	Caucasian	No	12.27	NS	Collapsing glomerulopathy	Yes	Yes	Yes	p.Tyr260_Ser262del	ABD	2017	[1]
31	NM	Japanese	NM	NM	Proteinuria	FSGS	NM	NM	NM	p.Leu224Pro	ABD	2022	[15]
32	NM	Japanese	NM	NM	Proteinuria	FSGS	NM	NM	NM	p.Thr359Met	Spectrin	2022	[15]
33	NM	Japanese	NM	NM	Proteinuria	FSGS	NM	NM	NM	c.912+1G>A	NA	2022	[15]
34	M	Caucasian	Yes	23	Proteinuria, CKD3	FSGS	NM	Yes	No	p.Leu169Pro and c.506T>C	ABD	2023	[16]
35	M	Chinese	No	12.5	Proteinuria, CKD3	NA	NA	NA	No	p.Ala278del	Linker region	2024	Present case

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