

Amino Acid position	Nucleotide change	Sequencing Exon	Resultant Amino Acid change	Protein structure Domain	Age ESRD	ESRD ref	Reference (PMID)	Reference (PMID)	Reference (PMID)	Reference (PMID)	Reference (PMID)	Reference (PMID)	# referrals
32	c.G95A	3	p.Cys32Tyr	EGF1		16883323	21868615	16883323	collaborator data				1
32	c.C96G	3	p.Cys32Trp	EGF1	44.5	records	19465746	21654721					1
32		3	p.Cys32Thr	EGF1			referral						1
34	c.G100A	3	p.Glu34Lys	EGF1	--	21868615	21868615						1
39		3	p.Ala39Thr	EGF1	65.7	collaborator data							4
41		3	p.Cys41Tyr	EGF1			referral						1
50	c.G149C	3	p.Cys50Ser	EGF1	25.7	23723338	18950917	collaborator data					1
52	c.G155A	3	p.Cys52Tyr	EGF1	45.0	records	novel referral						1
52	c.T156G	3	p.Cys52Trp	EGF1	--	23723338	21654721	15558519					1
52		3	p.Cys52Ser	EGF1	39.8	records	referral						1
55		3	p.Gly55Ser	EGF1	53.3	collaborator data	referral						1
55	c.G163A	3	p.Gly55Ser	EGF1			29513881						
58	c.G172T	3	p.Gly58Cys	EGF1	--	23723338	20172860						
59	c.A176C	3	p.Asp59Ala	EGF1	59.0	23723338	21868615	15558519					1
59		3	p.Asp59Tyr	EGF1	45.0	collaborator data							2
63	c.C189G	3	p.Cys63Trp	EGF1	30.3	24577984	24577984						
63		3	p.Cys63Ser	EGF1	36.7	records	referral						1
63	c.T187C	3	p.Cys63Arg	EGF1			23826568						1
67		3	p.Asp67Gly										1
68	c.G202A	3	p.Glu68Lys	EGF2	43.5	records	referral						1
69	c.T205C	3	p.Cys69Arg	EGF2	--	21868615	21868615						2
69	c.G206A	3	p.Cys69Tyr	EGF2	--	23723338	20172860						
76-77		3	77CysGly	EGF2	26.7	records	referral						1
76		3	p.Asn76Ser	EGF2	26.0	collaborator data							1
77	c.T229G	3	p.Cys77Gly	EGF2	45.0	23723338	17245395	21654721					
77	c.G230A	3	p.Cys77Tyr	EGF2	42.3	23723338	15558519	22740033					1
77		3	p.Cys77Arg	EGF2	39.0	records	referral						1
77		3	p.Cys77Trp	EGF2	--	21654721	21654721						
77		3	p.Cys77Ser	EGF2	32.0	collaborator data							1

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83	c.C249G	3	p.Cys83Trp	EGF2			29424336						
83		3	p.Cys83Ser	EGF2	20.5	collaborator data							1
83		3	p.Cys83Trp	EGF2	29.0	collaborator data	29424336						1
85		3	p.Asn85Lys	EGF2	55.0	referral							1
85		3	p.Asn85Ser	EGF2	41.0	referral							1
88	c.G263T	3	p.Gly88Val	EGF2	51.5	collaborator data							1
88		3	p.Gly88Asp	EGF2	65.6	collaborator data							8
91	c.272_274del	3	p.Ser91del	EGF2			novel						5
92		3	p.Cys92Gly	EGF2	31.5	collaborator data							1
92		3	p.Cys92Arg	EGF2		collaborator data							1
92	c.G275A	3	p.Cys92Tyr	EGF2			referral						2
93-97	c.278_289delinsCCGCCTCC T	3	p.Val93-Gly97delinsAA SC	EGF2	50.5	22034507	15558519	21654721	22034507	14531790	20172860	15673476	14
94	c.C282G	3	p.Cys94Trp	EGF2	42.5	records	referral	collaborator data					2
94		3	p.Cys94Tyr										1
103	c.G307T	3	p.Gly103Cys	EGF3	32.0	records	12471200	21654721	15558519				1
105		3	p.Gly105Cys	EGF3	47.0	collaborator data							1
106	c.T316G	3	p.Cys106Gly	EGF3	53.7	records	referral						2
106	c.G317A	3	p.Cys106Tyr	EGF3	--	23723338	20172860						2
106	c.G317T	3	p.Cys106Phe	EGF3		records	referral						5
109		3	p.Val109Glu	EGF3	--	23988501	23988501						
112	c.T334C	3	p.Cys112Arg	EGF3	64.0	23723338	21868615	15558519					1
112	c.G335A	3	p.Cys112Tyr	EGF3			novel						1
120	c.G359A	3	p.Cys120Tyr	EGF3	--		28605509	homozygous					
120		3	p.Cys120Arg	EGF3	36.0		referral						1
126	c.T376C	3	p.Cys126Arg	EGF3	52.0	23723338	21868615	15558519	22740033				1
128	c.A383G	3	p.Asn128Ser	EGF3	50.6	records	21654721	15558519	17065110	collaborator data	records		4
135	c.T403G	3	p.Cys135Gly	EGF3	40's	25786455	25786455						
135	c.T403A	3	p.Cys135Ser	EGF3	--	23723338	15558519	21654721	21868615				1
135	c.G404A	3	p.Cys135Tyr	EGF3	44.7	records	referral						2
135	c.G404T	3	p.Cys135Phe	EGF3	45.0	records	referral						2

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135		3	p.Cys135Trp	EGF3			referral						1
137		3	p.Cys137Arg	EGF3	48.0	collaborator data							1
148	c.G443A	3	p.Cys148Tyr	EGF3	44.4	records	12471200	21654721	15585519				3
148	c.G443C	3	p.Cys148Ser	EGF3	44.0	records	referral						2
148	c.T444G	3	p.Cys148Trp	EGF3	39.0	23723338	14570709	21654721	15558519				
150	c.T448A	3	p.Cys150Ser	Cys-Rich 1	50.0	20172860	20172860	collaborator data					2
150	c.G449C	3	p.Cys150Ser	Cys-Rich 1	--	23723338	21868615	14570709	15558519				
150		3	p.Cys150Tyr	Cys-Rich 1									1
153		3	p.Gly153Cys	Cys-Rich-1	57.0	collaborator data	27729211						2
155	c.T__C	3	p.Cys155Arg	Cys-Rich-1	--		25436415						
170	c.G509A	3	p.Cys170Tyr	Cys-Rich 1	58.5	23723338	21868615	15558519	collaborator data				2
172	c.C514G	3	p.Asp172His	Cys-Rich 1	60.0	records	21868615						2
173	c.C518G	3	p.Pro173Arg	Cys-Rich 1	--		28509303						
173	c.C518T	3	p.Pro173Leu	Cys-Rich 1			referral						1
173		3	p.Pro173Thr	Cys-Rich 1	51.0	collaborator data							1
174	c.T520C	3	p.Cys174Arg	Cys-Rich 1	60.0	23723338	referral						1
177-185	c.529_555del	3	p.His177-Arg185del	Cys-Rich1	46.0	records	15558519	12471200					22
178	c.G533C	3	p.Arg178Pro	Cys-Rich 1	49.7	records	referral						13
180		3	p.Leu180Pro	Cys-Rich 1			referral						1
180		3	p.Leu180Val	Cys-Rich 1									1
184	c.G552C	3	p.Trp184Cys	Cys-Rich 1	--	21868615	21868615	collaborator data					1
185	c.C553T	3	p.Arg185Cys	Cys-Rich 1	38.0	21868615	21868615	collaborator data					4
185	c.C553G	3	p.Arg185Gly	Cys-Rich 1	39.0	records	21654721	19465746					1
185	c.C553A	3	p.Arg185Ser	Cys-Rich 1	37.1	23723338	21868615	15558519	collaborator data				2
185	c.G554A	3	p.Arg185His	Cys-Rich 1	59.3	records	21868615						3
188-221	c.563_661del	3	p.Glu188-Leu221del	Cys-Rich1	38.5	23723338	15558519	21868615	21654721	collaborator data			1
195	c.G584T	3	p.Cys195Phe	Cys-Rich 1	--	23723338	21654721	15558519					
195	c.G584A	3	p.Cys195Tyr	Cys-Rich 1			referral						1
196	c.CG585_586T	3	p.Asp196Asn	Cys-Rich 1	56.5	21868615	21868615						1
196	c.G586A	3	p.Asp196Asn	Cys-Rich 1	--	23723338	20172860	19465746					
196		3	p.Asp196Ala	Cyst-Rich-1	40.0	collaborator data							1

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196	c.G586T	3	p.Asp196Tyr	Cys-Rich 1	37.8	23723338	21868615	19203555	22740033	collaborator data			2
197	c.G589T	3	p.Glu197X	Cys-Rich 1	33.0	27489562	27489562						
201		3	p.Gly201Asp	Dom 8 Cys		collaborator data							1
202		3	p.Trp202Arg	Dom 8 Cys	38.0	collaborator data							1
202		3	p.Trp202Cys	Dom 8 Cys	55.0	records							1
202	c.G605C	3	p.Trp202Ser	Dom 8 Cys	38.5	records	21654721	15558519					2
203		3	p.Tyr203Asp	Dom 8 Cys	64.0	records	referral						1
204		3	p.Arg204Pro	Dom 8 Cys		collaborator data							1
204	c.C610G	3	p.Arg204Gly	Dom 8 Cys	45.5	23723338	21868615	15558519	collaborator data	records			3
209		3	p.Gly209Asp	Dom 8 Cys	46.0	collaborator data							1
210	c.G628A	3	p.Gly210Ser	Dom 8 Cys	--	21868615	21868615						
210	c.G629A	3	p.Gly210Asp	Dom 8 Cys			novel						1
210		3	p.Gly210Arg	Dom 8 Cys		collaborator data							1
210		3	p.Gly210Ser	Dom 8 Cys		collaborator data							2
212		3	p.Arg212Cys	Dom 8 Cys	57.7	collaborator data							3
217	c.T649C	3	p.Cys217Arg	Dom 8 Cys	51.4	records	12471200	21654721	15558519	collaborator data			2
217	c.T649G	3	p.Cys217Gly	Dom 8 Cys	36.5	23723338	21868615	15558519	collaborator data				1
217	c.C651G	3	p.Cys217Trp	Dom 8 Cys	47.0	23723338	19465746	22740033	21654721				
217		3	p.Cys217Phe	Dom 8 Cys	32.0	collaborator data							1
219		3	p.Pro219Leu	Dom 8 Cys		collaborator data							1
222	c.G665C	3	p.Arg222Pro	Dom 8 Cys	49.2	23723338	21868615	15558519	collaborator data				1
223	c.T667G	3	p.Cys223Gly	Dom 8 Cys	41.9		29569962						
223	c.T667C	3	p.Cys223Arg	Dom 8 Cys	53.0	23723338	19465746	2274003	21654721				1
223	c.C668A	3	p.Cys223Tyr	Dom 8 Cys	49.0	23723338	15558519	21654721	15327389	12900848			3
223		3	p. Cys223Gly	Dom 8 Cys	56.0	collaborator data							1
225	c.C674T	3	p.Thr225Met	Dom 8 Cys	39.0	23723338	21868615	15558519	collaborator data				4
225	c.C674A	3	p.Thr225Lys	Dom 8 Cys	31.5	23723338	21654721	14531790	15558519				
229	c.T686G	3	p.Met229Arg	Dom 8 Cys	52.5	23723338	21654721	16883323					2
230	c.T688C	3	p.Trp230Arg	Dom 8 Cys	--	23723338	23197950	20172860					3
235		3	p.His235Gln	Dom 8 Cys	51.5	collaborator data							2
235		3	p.His235Tyr	Dom 8 Cys	--		referral						1
236	c.C707G	3	p.Pro236Arg	Dom 8 Cys			30976393						

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297	c.T891G	4	p.Cys297Trp	Cys-Rich 2	39.0	records	20151160	21868615					2
297	c.G893A	4	p.Cys297Tyr	Cys-Rich2	--	21868615	21868615						
300	c.T898G	4	p.Cys300Gly	Cys-Rich2	58.5	23723338	15983957	21654721	15558519	20172860	17065110		2
300	c.G899A	4	p.Cys300Arg	Cys-Rich2	--	23723338	referral						1
300		4	p.Cys300Tyr	Cys-Rich2	--	21654721	21654721						
300		4	p.Cys300Ser	Cys-Rich2									1
306	c.T917A	4	p.Cys306Ser	Cys-Rich2	37.0	27764983	27764983						
306	c.G917A	4	p.Cys306Tyr	Cys-Rich2			novel						2
307	c.A920C	4	p.Lys307Thr	Cys-Rich2	49.0	23723338	15673476	21654721					
315	c.T943C	4	p.Cys315Arg	Cys-Rich2	31.0	15983957	21654721	14570709	15558519				2
315	c.G944A	4	p.Cys315Tyr	Cys-Rich2	45.0	21868615	21868615	collaborator data					2
316	c.A947C	4	p.Gln316Pro	Cys-Rich2	65.5	23723338	15983957	21654721					
317	c.T949G	4	p.Cys317Gly	Cys-Rich2	40.0	27795632	27795632						
317	c.C950A	4	p.Cys317Tyr	Cys-Rich2	56.0	23723338	21654721	14570709	15558519				2
333		4	p. Leu333Pro	Cys-Rich2		collaborator data							1
375	c.G1124A	5	p.Arg375Gln	ZP	--	18846391	18846391						
458	c.G1372T	7	p.Val458Leu	ZP			referral	18846391					2
461	c.C1382A	7	p.Ala461Glu	ZP	--	23723338	21868615	21060763					1
469	c.C1406T	7	p.Thr469Met	ZP	--	21868615	21868615						
488		7	p.Gly488Asp	ZP	33.5	collaborator data							2
488	c.G1462A	7	p.Gly488Arg	ZP	--	21868615	21868615	collaborator data					1
488	c.G1462C	7	p.Gly488Arg	ZP	--	19465746	19465746						
550	c.1648G	8	p.Val550Ile	ZP			31068150						
605	c.A1815G	8	p.Thr605Gly	chain	49.0	22776760	22776760						

Please reach out to Anthony J. Bleyer ableyer@wakehealth.edu or Kendrah Kidd kkidd@wakehealth.edu for updates or questions