

**Supplementary Table S1.** Detailed phenotypes of the 7 families with detected variants.

ID	S	ADHM	SE (OD)	SE (OS)	AL (OD)	AL (OS)	K1/K2 (OD)	K1/K2 (OS)	HVID (OD)	HVID (OS)	CT (OD)	CT (OS)	ACD (OD)	ACD (OS)	Objective angle	Fundus abnormalities
E7	M	Infancy	-11.1 25	-13.25	24.97	24.61	-	-	-	-	-	-	-	-	-	No
E31	F	Early childhood	-9.50	-10.00	25.24	25.73	43.00/43.96	42.23/43.57	11.61	11.74	504	506	2.73	2.74	-7	No
E46	M	Early childhood	-9.50	-9.00	26.56	26.47	42.00/42/43	42.27/43.02	12.02	11.97	516	515	3.11	3.25	+2	No
E55	F	Early childhood	-12.2 5	-12.875	26.62	27.02	42.00/43.93	43.14/43.82	11.61	11.61	518	516	2.92	2.97	-3	No
E61	M	Early childhood	-9.00	-7.875	25.59	25.21	43.98/45.81	43.51/44.72	12.29	12.66	497	489	3.22	3.30	0	No
E64	M	Early childhood	-11.7 5	-15.50	26.26	26.58	42.55/46.86	42.47/46.58	11.83	11.83	571	560	3.02	2.95	-10	No
E70	F	Infancy	-8.50	-9.75	24.64	24.93	43.51/45.35	43.56/45.37	11.18	11.38	528	537	2.86	2.89	0	No

**S, sex; AE, age at examination; ADHM, age at diagnosis of HM; SE, spherical equivalent; AL, axial length; K1: Steep Keratometry Reading; K2: Flat Keratometry Reading; HVID: Horizontal Visible Iris Diameter; CT: Corneal Thickness; ACD: Anterior Chamber Depth**