

Table S1. a and b wave amplitudes of scotopic ERG in μV measured by scotopic ERG

Month	WT	Caspase12 ^{-/-}	T17M	T17M Caspase12 ^{-/-}	Ratio: T17M: WT	Ratio: T17M Caspase12 ^{-/-} :T17M	Ratio: T17M Caspase12 ^{-/-} :WT
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a- wave amplitudes

1	395±19	372±6.4	97±11	225±15	0.244	2.327	0.569
2	325±15	370±13	108±7.8	166±13	0.330	1.546	0.511
3	329±16	328±26	76±10	161±11	0.230	2.123	0.489

b- wave amplitudes

1	778.6±27	758.4±43	318.2±37	511.1±22	0.408	1.606	0.656
2	719.5±17	772.2±25	366.8±32	592.2±47	0.509	1.614	0.823
3	762.2±13	696.2±35	336.2±33	466.7±35	0.441	1.388	0.612

Table S2. Average ONL thickness in superior and inferior retinas in microns measured by SD-OCT

Month	WT	Caspase12 ^{-/-}	T17M	T17M Caspase12 ^{-/-}	Ratio: T17M: WT	Ratio: T17M Caspase12 ^{-/-} :T17M	Ratio: T17M Caspase12 ^{-/-} :WT
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Superior Retina

1	63.96±0.30	63.77±0.27	37.64±1.76	46.70±1.17	0.588493	1.240701	0.730144
2	61.02±0.46	58.68±0.37	37.41±1.03	46.16±1.05	0.613078	1.233895	0.756473
3	59.32±0.52	57.99±0.11	23.11±3.16	38.16±2.59	0.424477	1.515488	0.643291

Inferior Retina

1	63.4±0.69	63.3±0.28	35.8±1.79	45.4±0.96	0.564867	1.26907	0.716856
2	60.7±0.34	58.3±0.34	27.4±1.22	42.9±2.5	0.452208	1.563047	0.706823
3	59.2±0.52	58±0.11	18.6±1.29	33.4±3.58	0.313745	1.799785	0.564674

Table S3. Apoptosis associated markers in P30 retinas

Proteins	WT	Caspase12 ^{-/-}	T17M	T17M Caspase12 ^{-/-}	Ratio: T17M: WT	Ratio: T17M Caspase12 ^{-/-} :T17M	Ratio: T17M Caspase12 ^{-/-} :WT
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Western blot: Normalized protein in arbitrary units (a.u)

Bax	0.22±0.047	0.96±0.23	5.4±0.17	1.4±0.09	24.54	0.26	6.36
Traf2	0.025±0.001	0.031±0.004	0.3±0.08	0.029±0.007	12	0.096	1.16
Calpastatin	0.56±0.078	0.37±0.17	0.038±0.016	0.17±0.21	0.067	4.47	0.3
Caspase 12	0.227±0.048	-----	0.70±0.123	-----	6	-----	-----
NFKB	0.398±0.22	0.442±0.02	1.2±0.03	0.968±0.02	3.01	0.806	2.43
Caspase 3	0.095±0.03	0.219±0.01	1.61±0.1	0.942±0.2	16.9	0.585	9.9

Assay: Fluorescence and Luminescence in arbitrary units (a.u)

Calpain Activation	58541±2176	58541±1444	73255±2405	59698±2008	1.25	0.81	1.01
Caspase 3/7	206±28.5	96.8±6.5	636±53.6	312±2.89	3.08	0.49	1.51

qRT-PCR: Gene expression, fold change

Bax	1.13±0.13	0.789±0.03	1.23±0.05	1.1±0.05	1.08	0.89	0.97
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Caspase-12

Time Point	WT	T17M	Ratio: T17M:WT
P12	1.12±0.16	1.18±0.14	1.05
P18	1.08±0.17	6.11±0.97	5.65
P21	1.19±0.30	4.90±1.37	4.11
P25	2.05±0.62	5.82±0.98	2.83