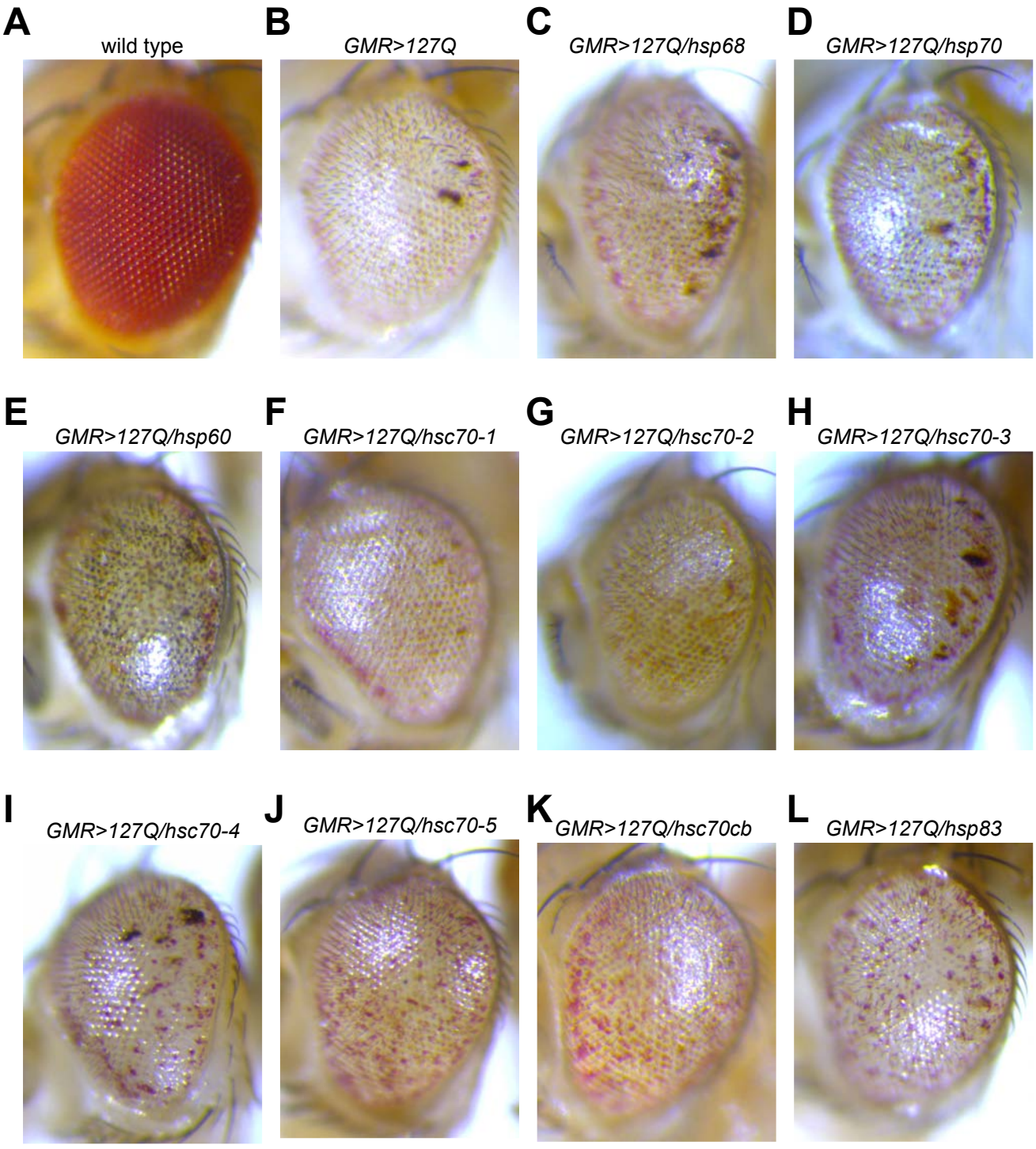
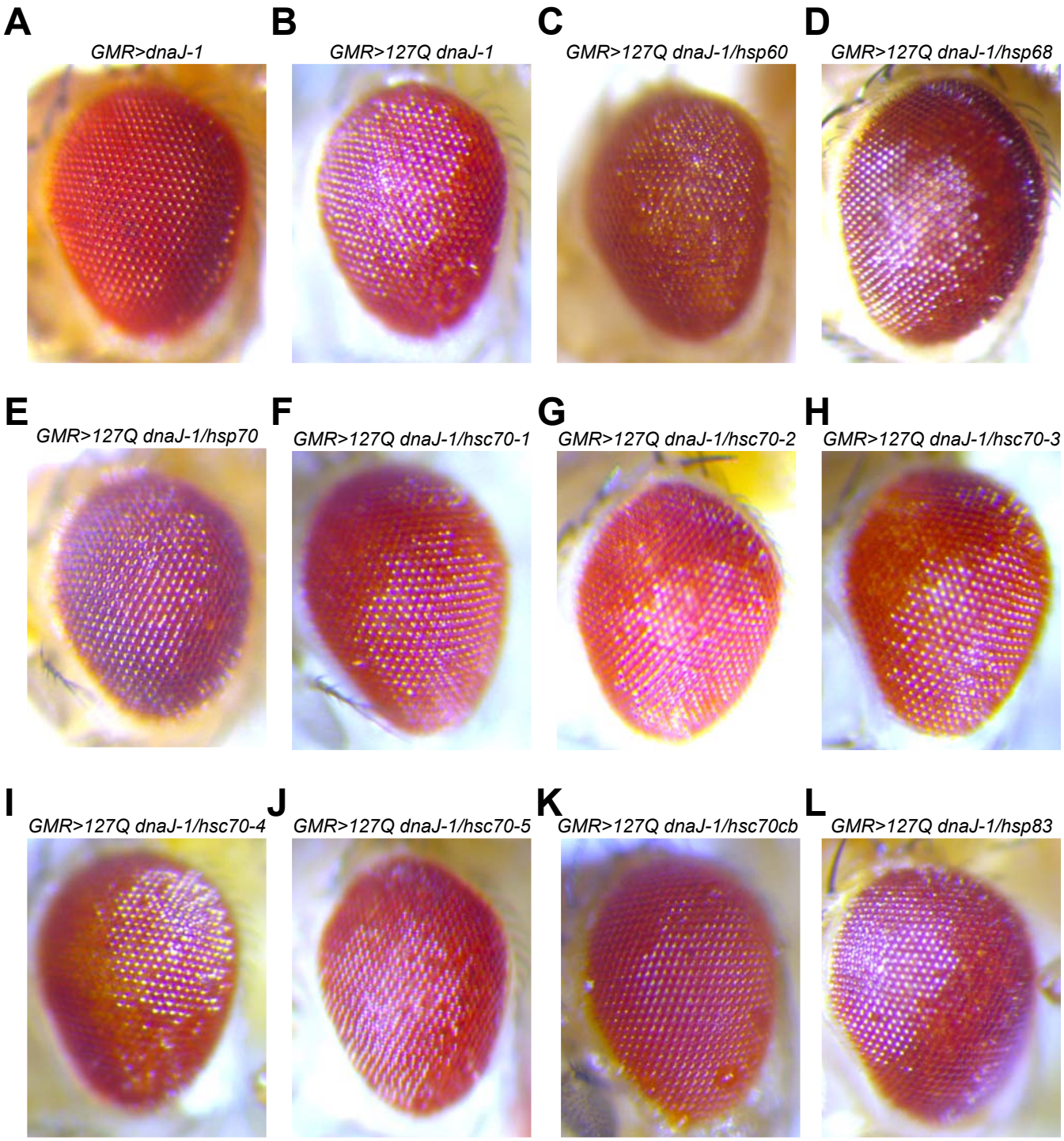
Supplemental Figure S1



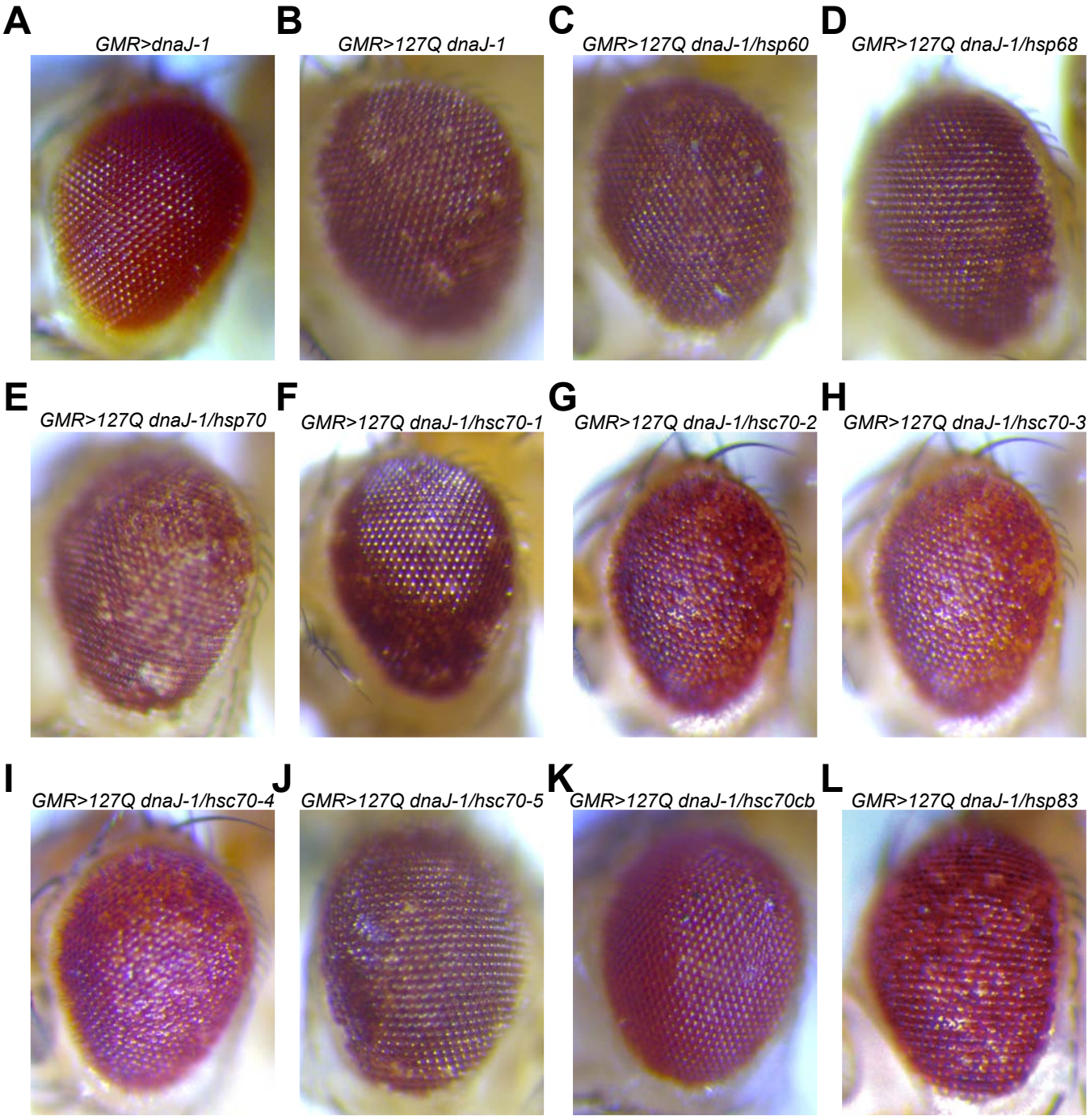
Supplemental Fig S1. Screen heat-shock proteins for suppressors of polyQ toxicity. Individual expression of HSP68, HSP70, HSP60, HSC70-1, HSC70-2, HSC70-3, HSC70-4, HSC70-5, HSC70cb, HSP83 in the *GMR>127Q* background had little effect on external degeneration of *GMR>127Q*.

Supplemental Figure 2



Supplemental Fig. S2. Screen heat-shock proteins for co-suppressors with DNAJ-1 on polyQ toxicity. Comparing to *GMR>127Q dnaJ-1*, expression of HSP68, HSP70, HSP60, HSC70-1, HSC70-2, HSC70-3, HSC70-4, HSC70-5, HSP83 with DNAJ-1 in the *GMR>127Q* background had little effect on external degeneration, while expression of HSC70cb (K) enhance the suppression effect of DNAJ-1 on 127Q-induced external degeneration. Flies under 1-day old were used.

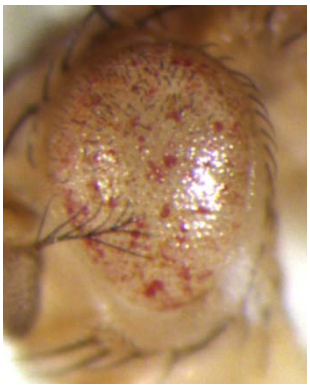
Supplemental Figure 3



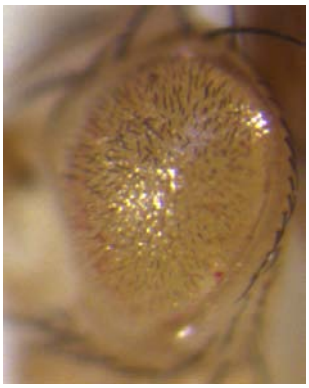
Supplemental Fig. S3. Examination of eye morphology of aged animals with co-expression of DNAJ-1 on polyQ-induced external degeneration. Co-expression of HSC70cb (K) with DNAJ-1 further suppressed external degeneration of *GMR>127Q* compared with *GMR>127Q dnaJ-1*, while co-expression of other heat-shock proteins with DNAJ-1 did not. The flies were reared under a 12 h light/12 h dark cycle for 10 days.

Supplemental Figure S4

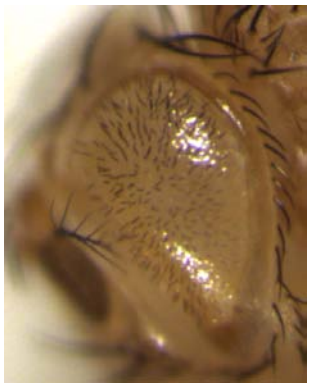
GMR>127Q



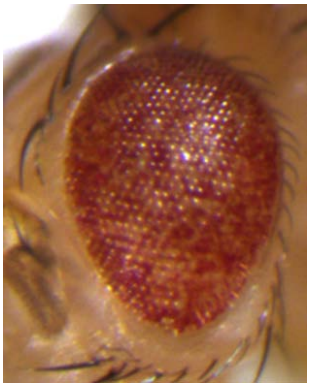
GMR>127Q droJ2



GMR>127Q CG5001

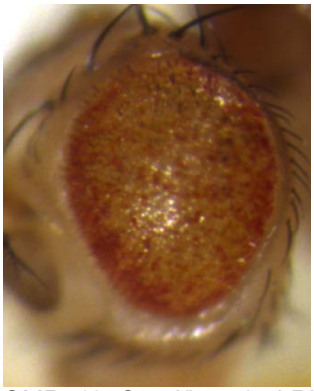


GMR>127Q CG2887



GMR>127Q mrj

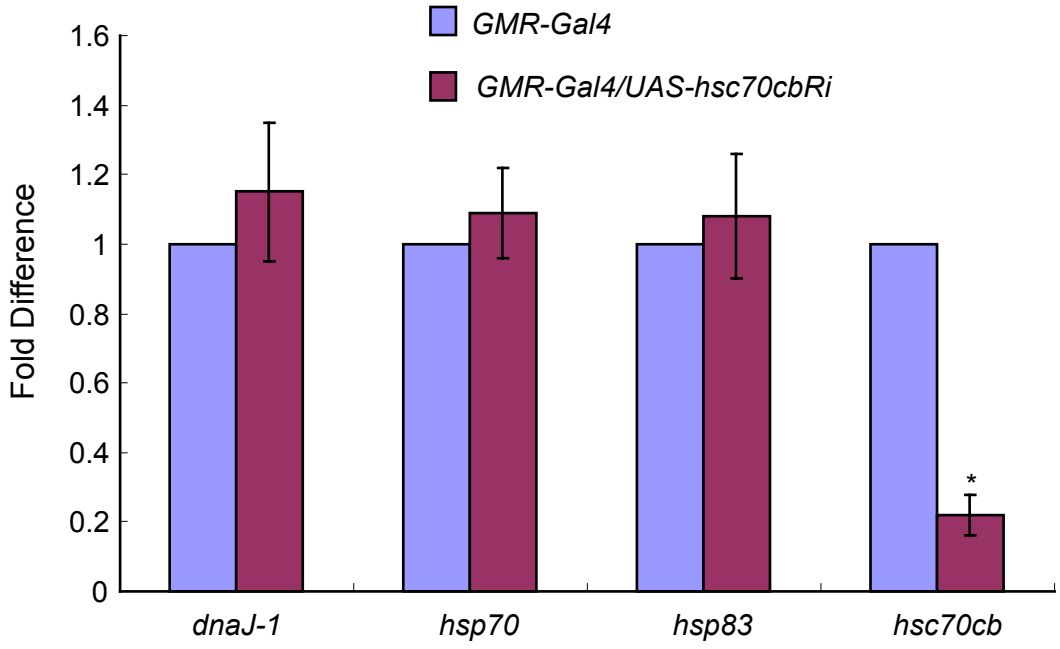
GMR>127Q mrj/hsc70-cb



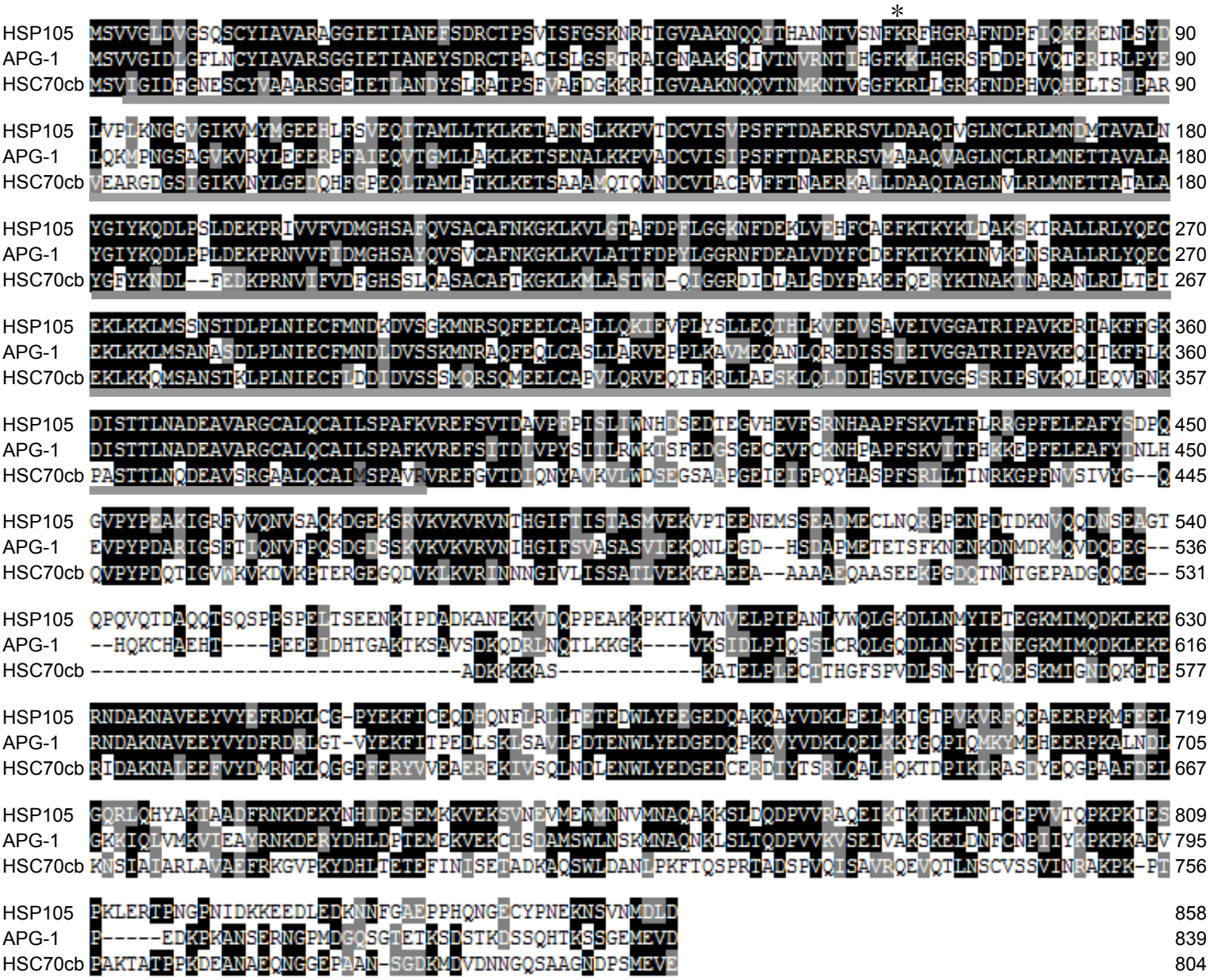
GMR>127Q mrj/hsc70-cbRi

Supplemental Figure S4: MRJ suppressed polyQ toxicity independent of HSC70cb. Photographs of the external eye of *GMR>127Q*(*GMR-Gal4 UAS-127Q/+*), *GMR>127Q droJ2*(*GMR-Gal4 UAS-127Q/UAS-droJ2*), *GMR>127Q CG5001*()*GMR-Gal4 UAS-127Q/UAS-CG5001, GMR>127Q CG2887*(*GMR-Gal4 UAS-127Q/UAS-CG2887*),*GMR>127Q mrj*(*GMR-Gal4 UAS-127Q/UAS-mrj*), *GMR>127Q mrj/hsc70-cb* (*GMR-Gal4 UAS-127Q UAS-hsc70cb/UAS-mrj*) and *GMR>127Q mrj/hsc70-cbRi* (*GMR-Gal4 UAS-127Q UAS-hsc70cbRi/UAS-mrj*).

Supplemental Figure S5



Supplemental Figure S5: Specific Downregulation of *hsc70cb* mRNA by expression of *hsc70cb* RNAi in fly retina. Fly retinae were dissected from young fliies of *GMR-gal4* and *GMR-gal4/hsc70cbRi.* Quantitative RT-PCR analysis of the expression of dnaJ-1, hsp70, hsc83 and hsc70cb was nomalized to gapdh. Asterisks indicate statistically significant differences (Student's unpaired t test; $P < 0.01$).



Supplemental Fig. S6. Alignment of the HSC70cb amino acid sequence with HSP105 and APG-1. Identical residues, which are found in at least two proteins, are enclosed in black boxes. The ATPase domain is indicated by the solid line underneath the corresponding sequence. The running tally of amino acids is indicated to the right, and asterisk indicates the amino acid in HSC70cb mutated to HSC70cb^{K68S}.