

Supporting Information

Muffat et al. 10.1073/pnas.0800896105

ClustalW Alignment of hApoD and GLaz

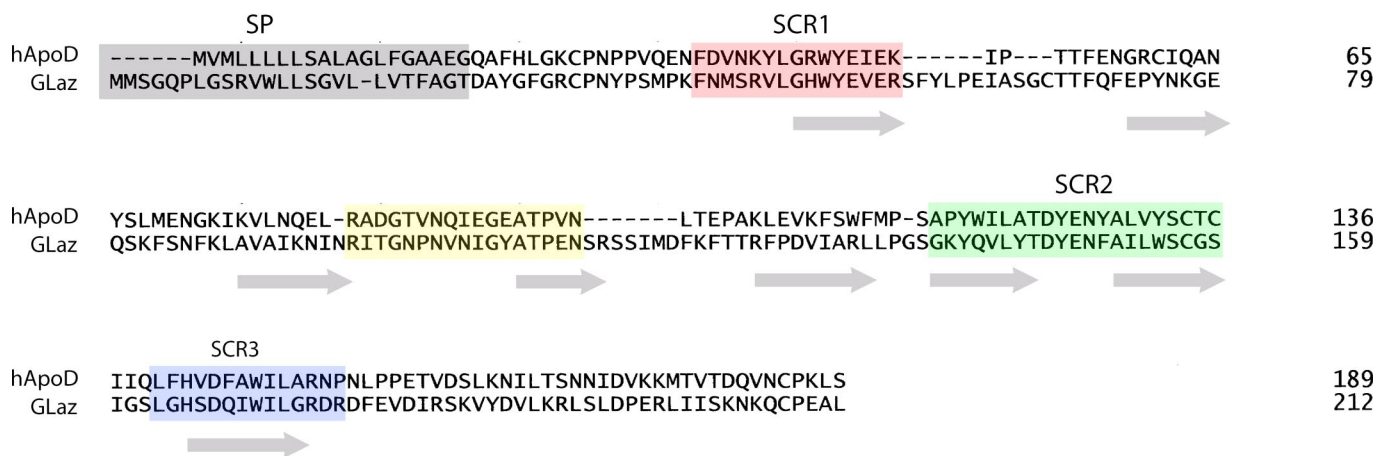


Fig. S1. Alignment of human ApoD and GLaz. ClustalW alignment of hApoD and the *Drosophila* ortholog GLaz. Both proteins are lipocalins, lipid carriers characterized by a chalice structure formed by eight β -sheets (shown here as gray arrows). These proteins show significant homology, especially in three Structurally Conserved Regions (SCR1, SCR2, and SCR3), considered to be the backbone of the structure. In this case, the overall identity reaches 35%, whereas the SCRs (red, green, and blue boxes) all show >50% identity. When amino acid properties are taken into account, the SCRs display >70% similarity. The gray box represents the signal peptides (SPs), whereas the yellow box denotes another region of significant homology not found in other lipocalins.

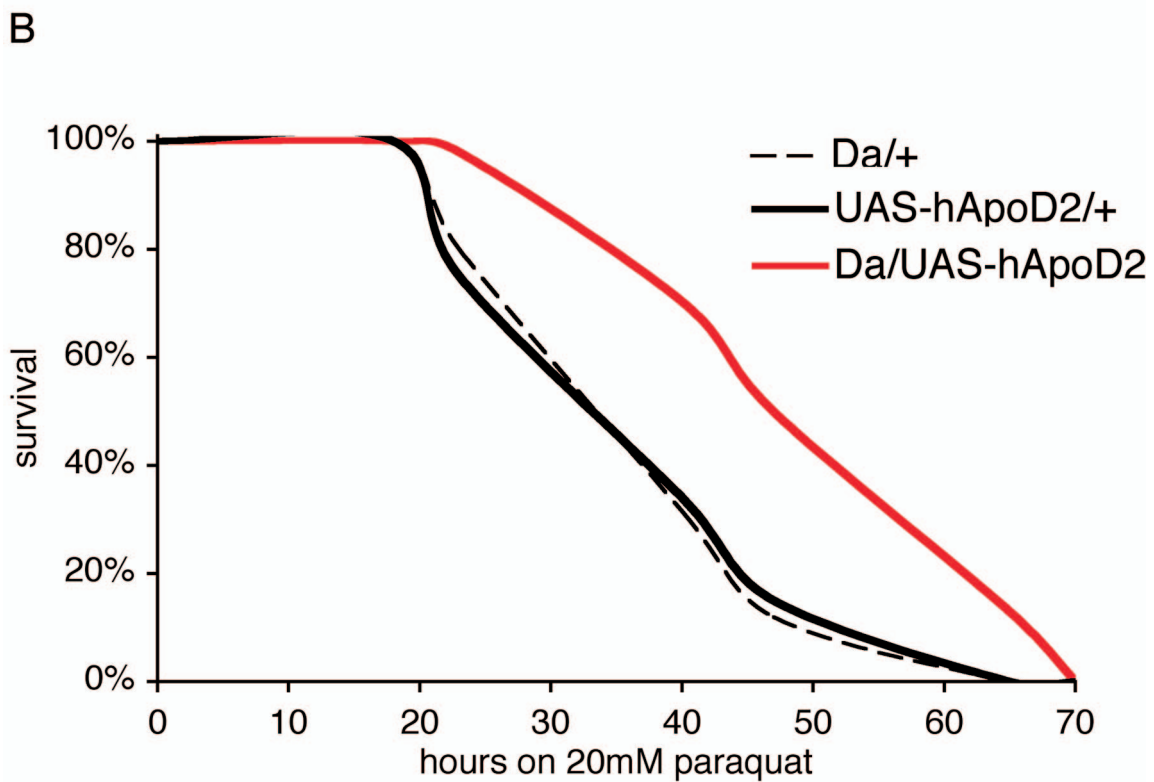
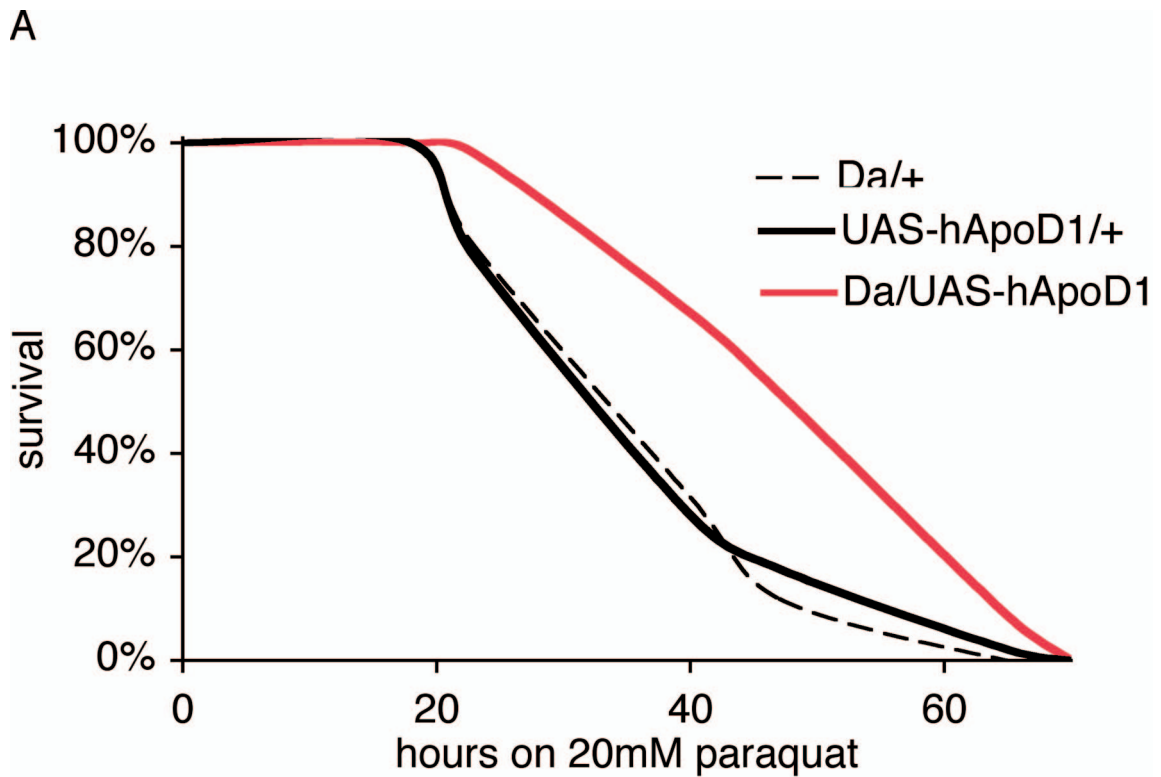
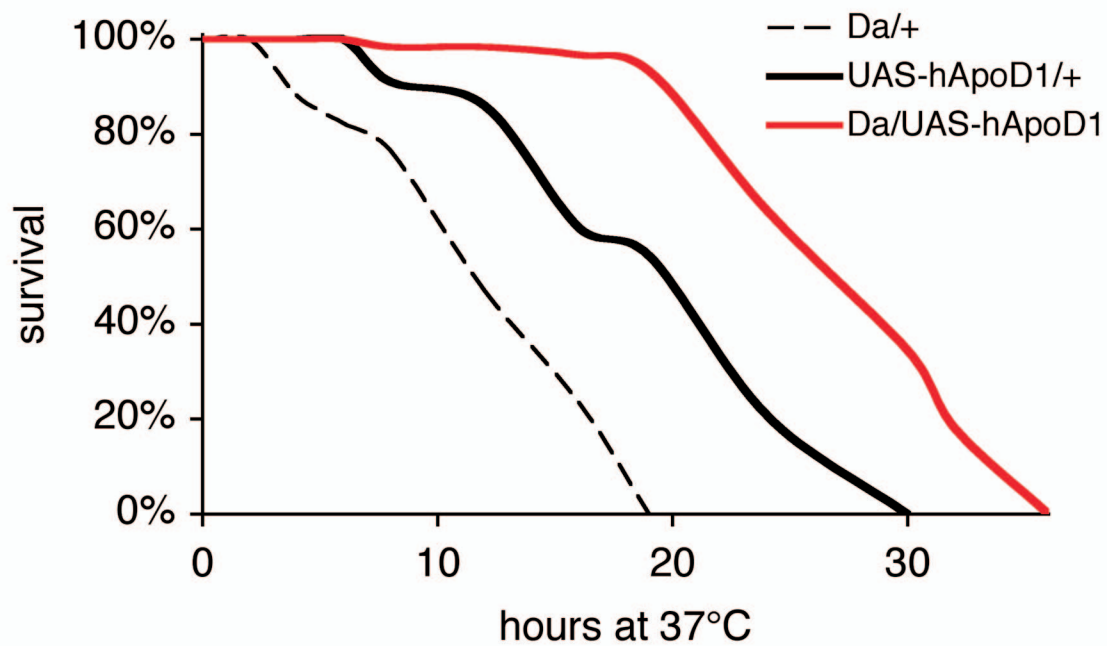


Fig. S2. Overexpression of hApoD enhances resistance to paraquat in *Drosophila*. (A) Effect of overexpressing *UAS-hApoD1* by using *Da* as a ubiquitous driver. Survival was recorded on 5% sucrose, 1% agar, at 25°C, with 20 mM paraquat added. *Da/UAS-hApoD1* flies had a 40% longer median survival than *UAS-hApoD1/+* controls ($P < 0.001$). (B) *Da/UAS-hApoD2* flies had a 38% longer median survival than *UAS-hApoD2/+* controls ($P < 0.001$).

A



B

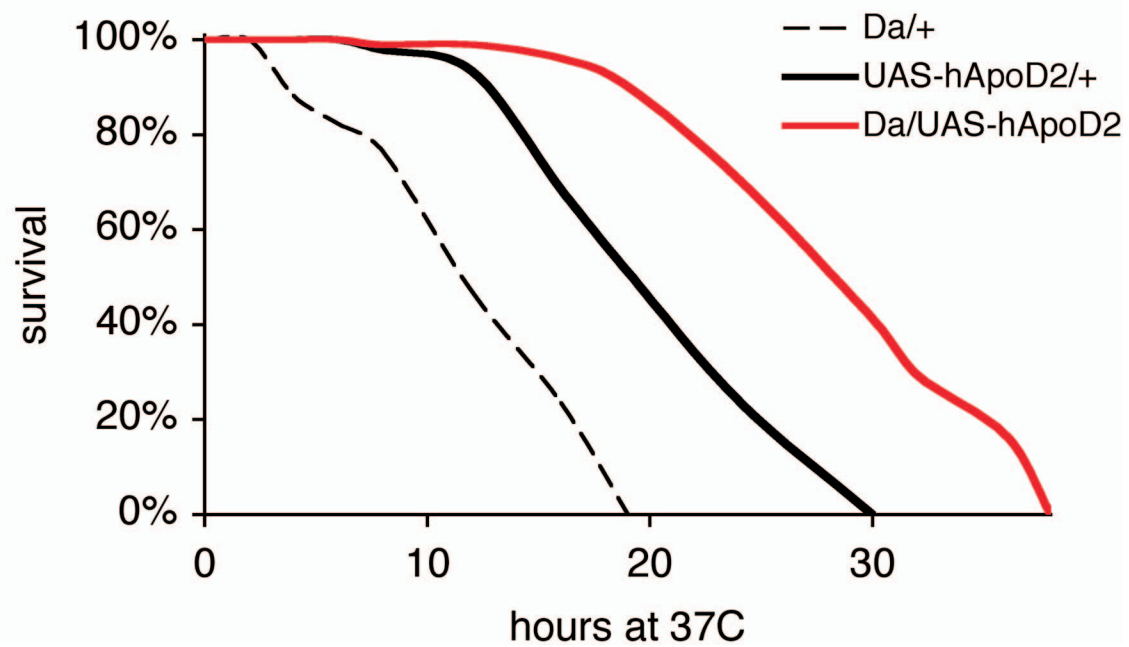


Fig. S3. Overexpression of hApoD increases resistance to heat, in *Drosophila*. Survival was recorded on normal food, at 37°C. (A) *Da/UAS-hApoD1* flies had a 35% longer median survival than *UAS-hApoD1/+* controls ($P < 0.001$). Maximum survival was also improved by 25% ($P < 0.001$). (B) *Da/UAS-hApoD2* flies had a 40% longer median survival than *UAS-hApoD2/+* controls ($P < 0.001$). Maximum survival also was improved by 26%.