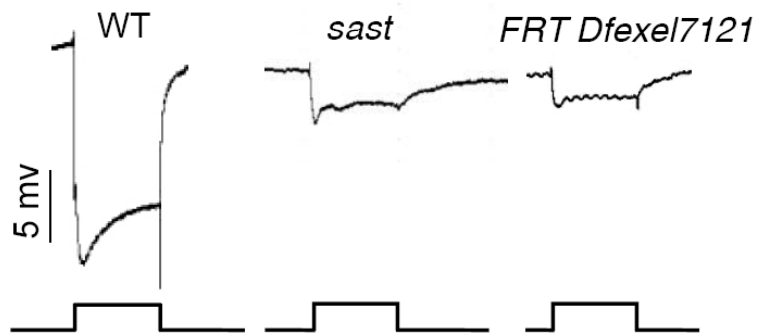
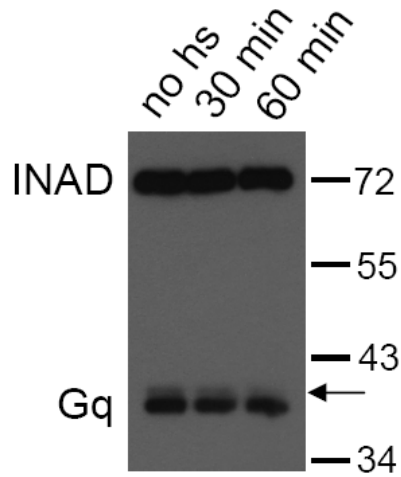


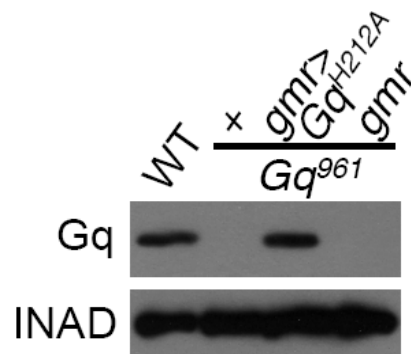
**Supplemental figure 1.** Western blots of DGq protein levels in wild-type and the *sast* mutant. Each lane was loaded with the eighth part of head. Arrow points out the nonspecific bands, which are detectable with the prolonged exposure time. WT = wild type.



**Supplemental figure 2.** Representative ERG traces of wild type, *sast* mutant, and *Df(2R)Exel7121* mosaic eye flies. For all ERG traces, event markers represent 5-s orange light pulses, and scale bars are 5 mV. WT = wild type.



**Supplemental figure 3.** Gq protein levels in different treatments. Wild-type adults reared at 21 °C were exposed to 30 minutes of heat-shock at 37 °C (30 min) or 1 hour of heat-shock at 37 °C (60 min) or no heat-shock (no hs). All flies were collected and analyzed at 24-hour post-heat-shock. INAD was used as the loading control. The up nonspecific bands are labeled with arrow.



**Supplemental figure 4.** The protein level of DGq in *cn,Gq<sup>961</sup>,bw;gmr>Gq<sup>H212A</sup>* flies and control flies.