



Figure S4 Expression of previously reported targets in the optic lobe. Brains from late-third instar (A-F) or mid-late third instar larvae (G-O) cultured at 25° were stained with the markers indicated. (A-C) The *10XSTAT92E-GFP* reporter is strongly expressed in the lamina, but virtually undetectable in the NEs (A); the reporter expression weakly increased in the NEs of JAK activated brains (B, indicated by arrow), but was not detectable in JAK inactivated brains which had no NEs (C). (D-F) At late-third instar, *SOCS36E* protein is strongly expressed in the NEs, medulla neuroblasts, LPCs, and some developing lamina neurons, as well as strongly expressed in neurons of the central brain (D). *SOCS36E* expression did not increase cell autonomously in the NEs of JAK activated brains (E, arrowheads indicate *SOCS36E* expression in the overgrown neuroepithelium), but was undetectable in JAK inactivated brains which essentially lost all NEs (F). (G-I) At mid-late third instar, *SOCS36E* protein is not expressed in the optic lobe, but is strongly expressed in neurons and neuroblasts of the central brain. (J-L) *PTP61F* is strongly expressed in the NEs, medulla neuroblasts, LPCs, and the lamina, and is also expressed in central brain neuroblasts (J); *PTP61F* expression did not appear to increase cell autonomously in the NEs and lamina cells of JAK activated brains (K), and was not reduced in the residual NEs of JAK inactivated brains (L). (M-O) *Zfh-1* protein is expressed in the lamina (M); *Zfh-1* expression did not increase in JAK activated brains (N), but was undetectable in JAK inactivated brains which had no lamina (O). Frontal view, lateral is to the left, medial to the right. Scale bar: 20µm.