

Orc6-DmWT



Orc6-DmY225S



Figure S5. Histological analysis of indirect flight muscles. Adult flies were fixed and processed according to paraffin-embedded protocol (Kucherenko et al. 2010). Transversal paraffin sections of *Drosophila* thoraxes were selected to visualize indirect flight muscles (IFMs). IFMs are constituted of six dorsal longitudinal muscles (marked by arrowheads) and seven dorsoventral muscles (pointed by arrows) (Bernard et al. 2003). No muscle atrophy was detected in Meier-Gorlin flightless mutant compared to wild type. Orc6-DmWT – *orc6* deletion rescued with *Drosophila* wild type *orc6* transgene. Orc6-DmY225S – *orc6* deletion rescued with *Drosophila* Meier-Gorlin *orc6-DmY225S* transgene.