**Figure S1. The MSL2 proteins.**

(A) Protein sequence alignment of *D. melanogaster* (drome), *D. willistoni* (will), *D. busckii* (drobs) and *D. virilis* (drovi) MSL2 proteins using the expresso t-coffee web server according to (Armougom et al. 2006). Red portions have a high reliability, blue and green portions are the less consistent. Relevant domains are highlighted.

(B) Chromosomal distribution of *in vitro* binding events of MSL2<sup>mel</sup> (MEL) and MSL2<sup>vir</sup> (VIR) from one (MEL) and two (VIR) independent genome-wide DIP-assays using *virilis* genome. The chromosomal size distribution (genome) is provided for reference.