

Figure S3 Specificity of the anti-sera against the Sciara male and female DSX proteins. Western blots of GST-ScDSXM (lane M), GST-ScDSXF (lane F) and GST-DSXC (lane C) probed with  $\alpha$ -ScDSXF serum (A), with  $\alpha$ -ScDSXM serum (B) and with  $\alpha$ -ScDSXC serum (C). To construct the GST-DSX fusion proteins, the procedure of Smith and Johnson [Smith DB, Johnson KS (1988) Single-step purification of polypeptides expressed in Escherichia coli as fusions with gluthanione S-transferase. Gene 67:31-40] was followed with minor changes. To generate the GST-DSXF fusion, the whole ORF of S. coprophila dsxF was amplified from cDNA with primers pGexDxsC and pGexdsxF containing a restriction site for EcoRI and HindIII, respectively. To generate the GST-DSXM fusion, the whole ORF of S. coprophila dsxM was amplified from cDNA with primers pGexDxsC and pGexdsxM containing a restriction site for EcoRI and HindIII, respectively. To generate the GST-DSXC fusion, the fragment corresponding to the common N-terminal region of S. coprophila dsx was amplified from cDNA with primers pGexDxsC and pGexdsxC2 containing a restriction site for EcoRI and HindIII, respectively. The amplicons were cloned in pGEMT-easy (Promega) and sequenced. The DNA of the pGEMT-easy vectors was digested with EcoRI and HindIII and the fragments were ligated in frame into the pGex-B vector using the T4 DNA ligase (Roche). All the positive clones were sequenced to ascertain correct orientation.

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