Supplementary Material S7:

# Rescue experiments in Drosophila

Table SM7.1:
Primers used for cloning the heterologous SPS1 proteins into the *pUAST-attB* vector (see Methods).

| Primer name | Primer sequence |
|---|---|
| Human_SPS1_F | ATTCGTTAACAGATCTATGTCTACGCGGGAGTCCTTTAACC |
| Human_SPS1_R | TAGAGGTACCCTCGAGACACCCGGGGCCACCTCTTAA |
| Ciona_SPS1_F | ATTCGTTAACAGATCTATGGCACTAAGACCAAAATTTGACCCCCAATC |
| Ciona_SPS1_R | TAGAGGTACCCTCGAGCAAATGCAACAGTTTCAGAATCATCACCAGT AA |
| Atta_SPS1_F | ATTCGTTAACAGATCTATGGCGGAGCTGCAGGGCA |
| Atta_SPS1_R | TAGAGGTACCCTCGAGTTACTTTTTCATATGAATAAAGTGCTACTTTGT CAATAAAA |

## Figures in Supplementary Material S7:

Figure SM7.1:
Schema of crosses to obtain a transgenic fly expressing an heterologous *SPS1* in a ptuf mutant background (*ptuf* = drosophila *SPS1* knock out).

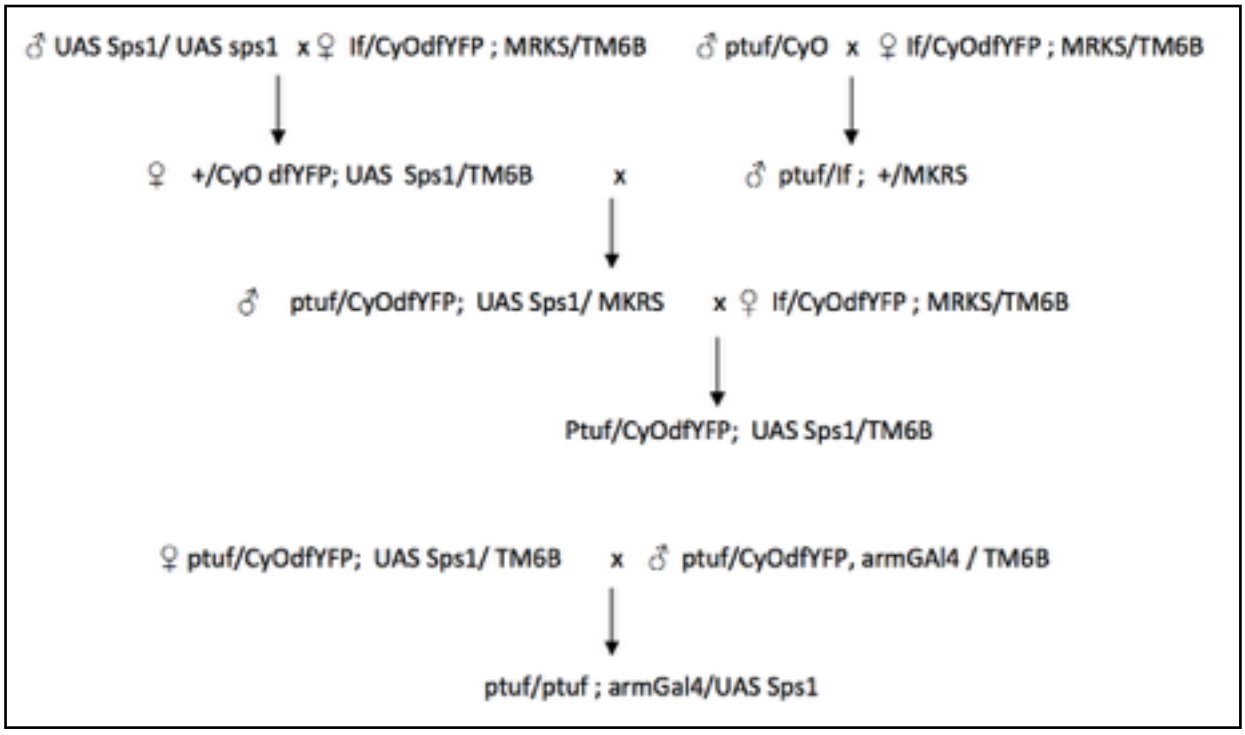

Figure SM7.2:
Expression of exogenous *SPS1* in transgenic drosophila larvae. Real time PCR of RNA extracted from larvae from UAS- lines under the control of the arm-Gal4 driver. All transgenes (Ciona *SPS-Gly*, Atta *SPS1-UGA* and human *SPS1-Thr*) are expressed, although there are differences in their relative expression levels. Control bars represent RNA extracted from larvae containing the UAS- transgenes in the absence of *arm-Gal4* driver.