levels of secretion of EsPGRP2 into the deep crypts (dc) at 24 h comparable to that observed in symbiotic animals. non-sym, non-symbiotic; sym, symbiotic.

Figure S1. EsPGRP2 was present in squid muscle tissues.

Confocal immunocytochemistry of various tissues from *E. scolopes* juveniles revealed that unlike other types of connective tissue, those containing actin filaments (rhodamine-phalloidin, red) also contained EsPGRP2 protein (yellow) in cytoplasmic striations. The actin filaments and the EsPGRP2 striations did not colocalize, suggesting that the two do not directly associate. Epithelial tissues in close proximity to the striated connective tissues, such as the gut epithelia, maintained a more typical apical cytoplasmic localization. (A) A schematic of the juvenile squid. (B) Head muscle tissue, (C) outer epithelia of the gut and (C') muscle tissue of the gut. mt, muscle tissue. Nuclei with TOTO-3 (blue).

Figure S2. EsPGRP2 was secreted from mucosal surfaces, including the light organ.

(A) Merged immunocytochemistry image of juvenile light organ stained with WGA-Oregon green (B, blue) or with the anti-EsPGRP2 antibody (C, yellow). Dashed box represents area shown in higher magnification in (D). EsPGRP2 was associated with shed mucus (arrow heads) and was also clearly visible in vesicle-like structures present in epithelial tissues (arrows).