Table S2.1 List of Selected Protein Receptors, Predicted Molecular Weight, Protein ID, Locus Tag, Epitopes, and Dilutions Used for Immunoblotting and Immunolocalization

Transpoter Name	Short name	Predicted Molecular Weight (kDa)	Protein ID	Locus Tag	Peptide Antigen (Epitope)	Antigen Concentration	pAB Stock Concentration	Immunoblot Dilution	Immunolocalization Dilution
Transient receptor potential cation channel, subfamily A, member 1	TRPA1	63	KXJ18086.1	AIPGENE8555	GSTSVDLNEYREPW	2mg/ml	0.623mg/ml	1:250	1:100
Prostaglandin E2 receptor 4	EP4	41	KXJ28775.1	AIPGENE3997	VSERGRNKDDKKSS	2mg/ml	0.915mg/ml	1:1000	1:100
Prostaglandin E_2 receptor 2	EP2	63	KXJ26289.1	AIPGENE315	QTQDVSGVTDRQPA	2mg/ml	0.743mg/ml	1:1000	1:100
Glutamate receptor inotropic, kainate 2	GRIK2	108	KXJ18488.1	AIPGENE1622	TSSDEGIKKATEGN	2mg/ml	0.322mg/ml	1:4000	1:50

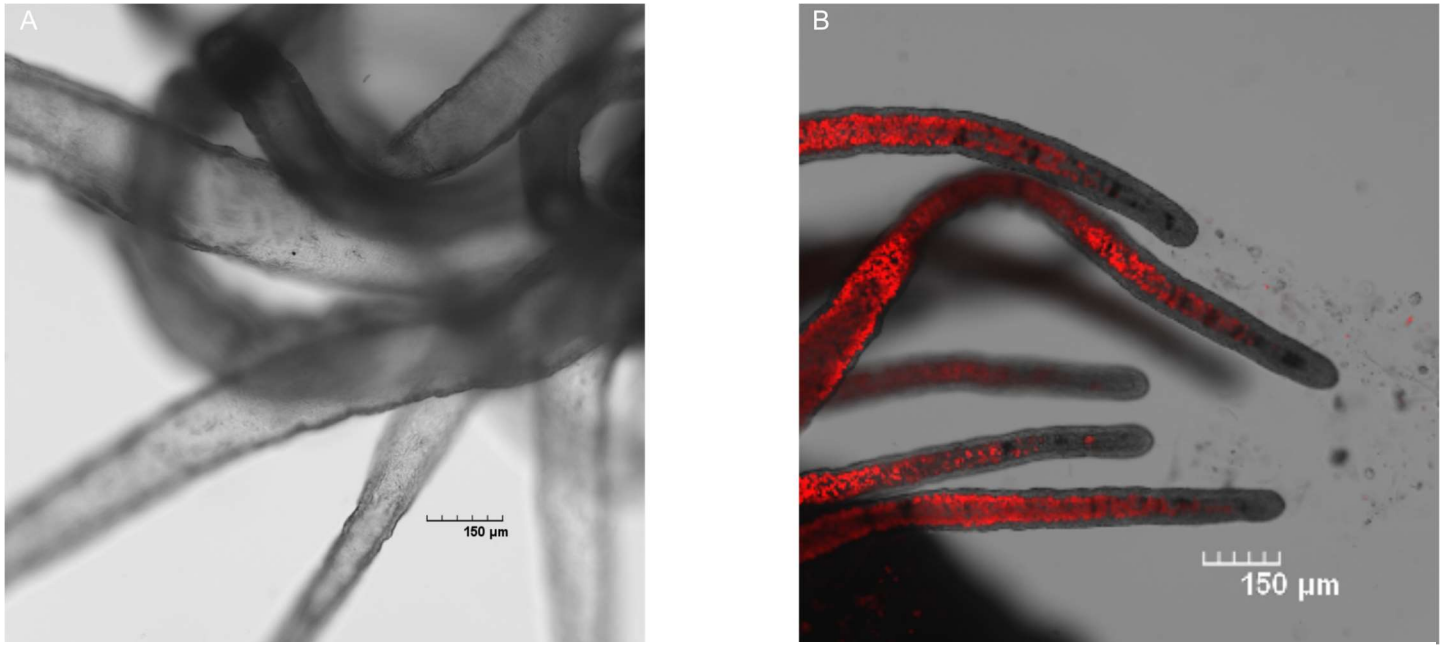

Figure S2.1 Confocal examination of symbionts by chlorophyll autofluorescence. A) Aposymbiotic anemone. B) Anemone hosting *B. minutum* symbionts. Red indicates chlorophyll autofluorescence of the symbionts.

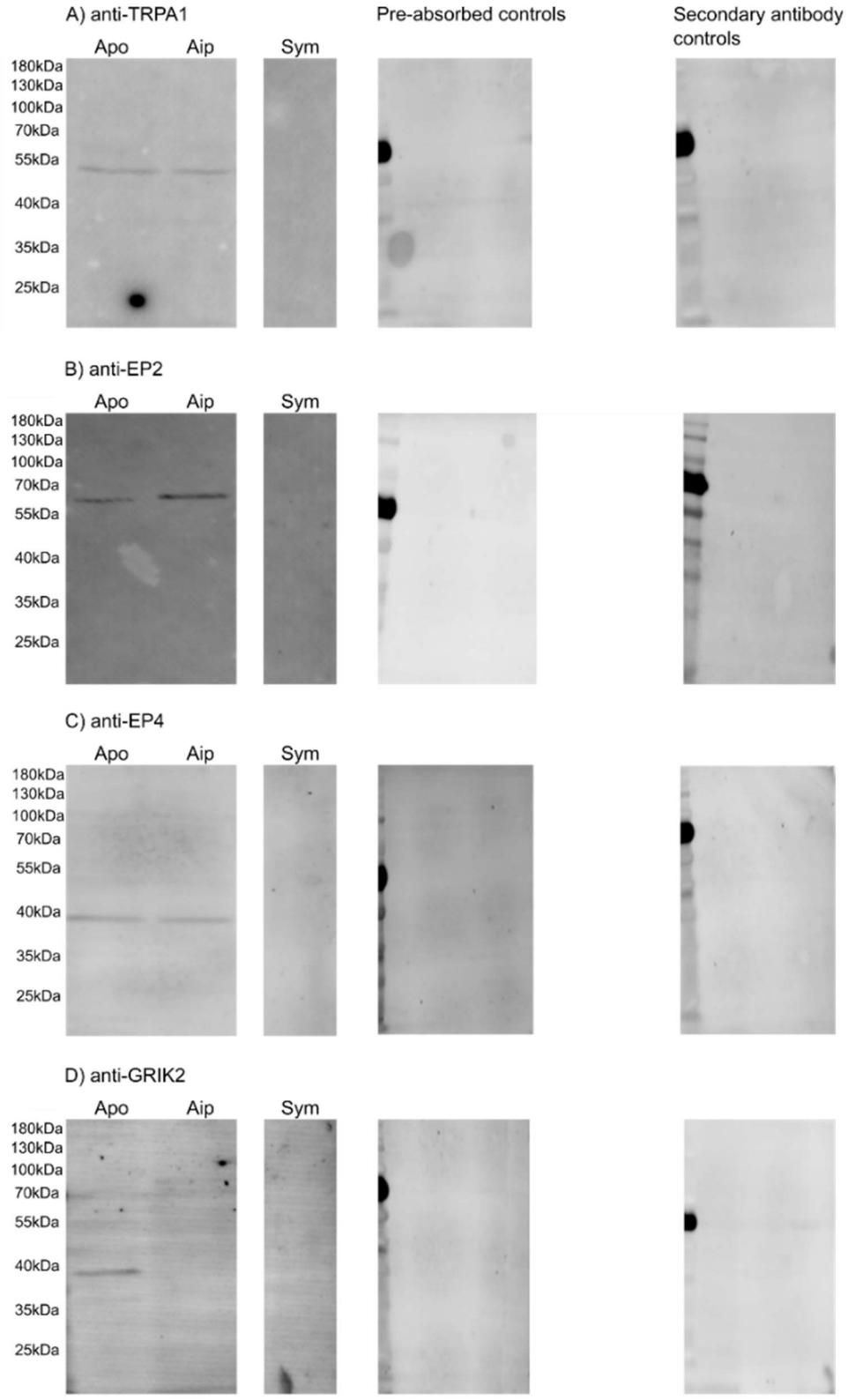

Figure S2.2 Expression of selected receptors in aposymbiotic (Apo), symbiotic anemones (Aip), and cultured symbionts (Sym) as controls. Pre-absorbed controls with 2x concentration of the antigen and secondary antibody controls (Goat Anti-Rabbit IgG AlexaFluor®555) are also shown. A) TRPA1 50 kDa, B) GRIK2 40 kDa, C) EP4 40 kDa, D) EP2 60 kDa.

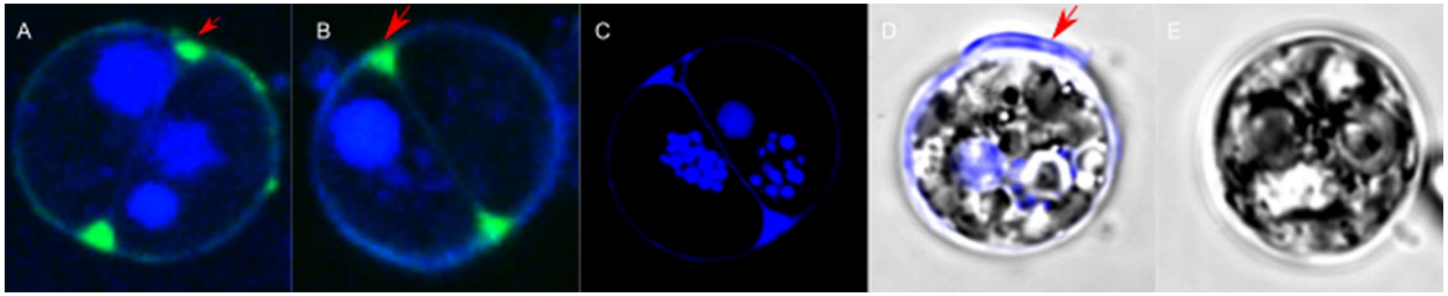

Figure S2.3 Confocal verification of the presence of the symbiosome membrane and absence of the host nucleus using FM 1-43 stain. A + B) Dividing symbionts with the absence of the host nucleus, and the symbiosome stretching between them, indicated by red arrows. C) Example of dividing symbionts without the host nucleus. D) Symbiont with the presence of the host nucleus, indicated by a red arrow. E) Control consisting of cultured symbionts stained with FM 1-43. Blue, nuclear staining using DAPI; green, membrane staining using FM 1-43.

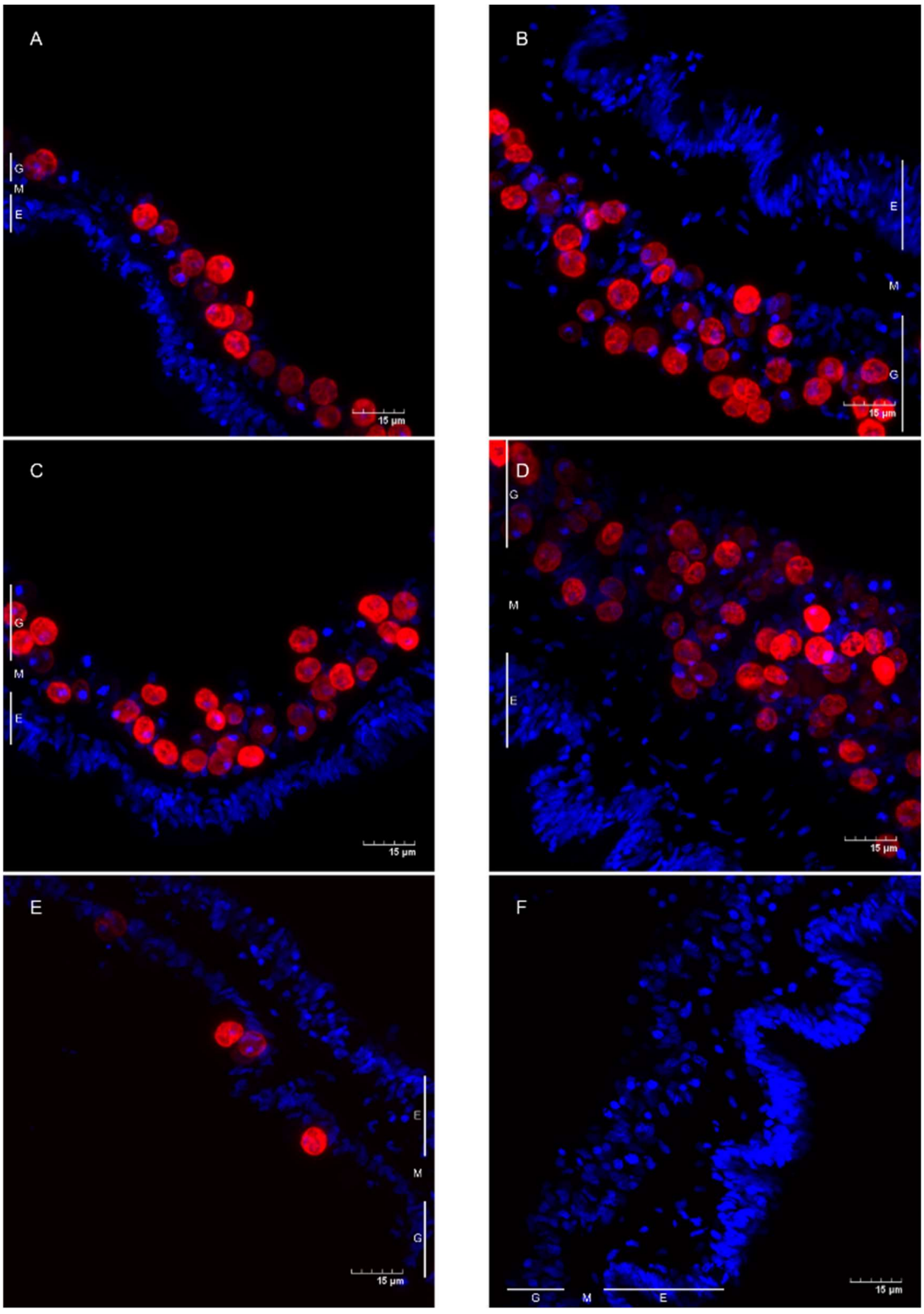

Figure S2.4 Immunolocalization controls consisting of antigen pre-absorption for A) anti-TRPA1, B) anti-GRIK2, C) anti-EP2, and D) anti-EP4, as well as secondary antibody controls for symbiotic (E) and aposymbiotic (F) anemones. Red, chlorophyll autofluorescence of the symbionts; blue, nuclear staining using DAPI. G = gastrodermis; M = mesoglea; E = epidermis.

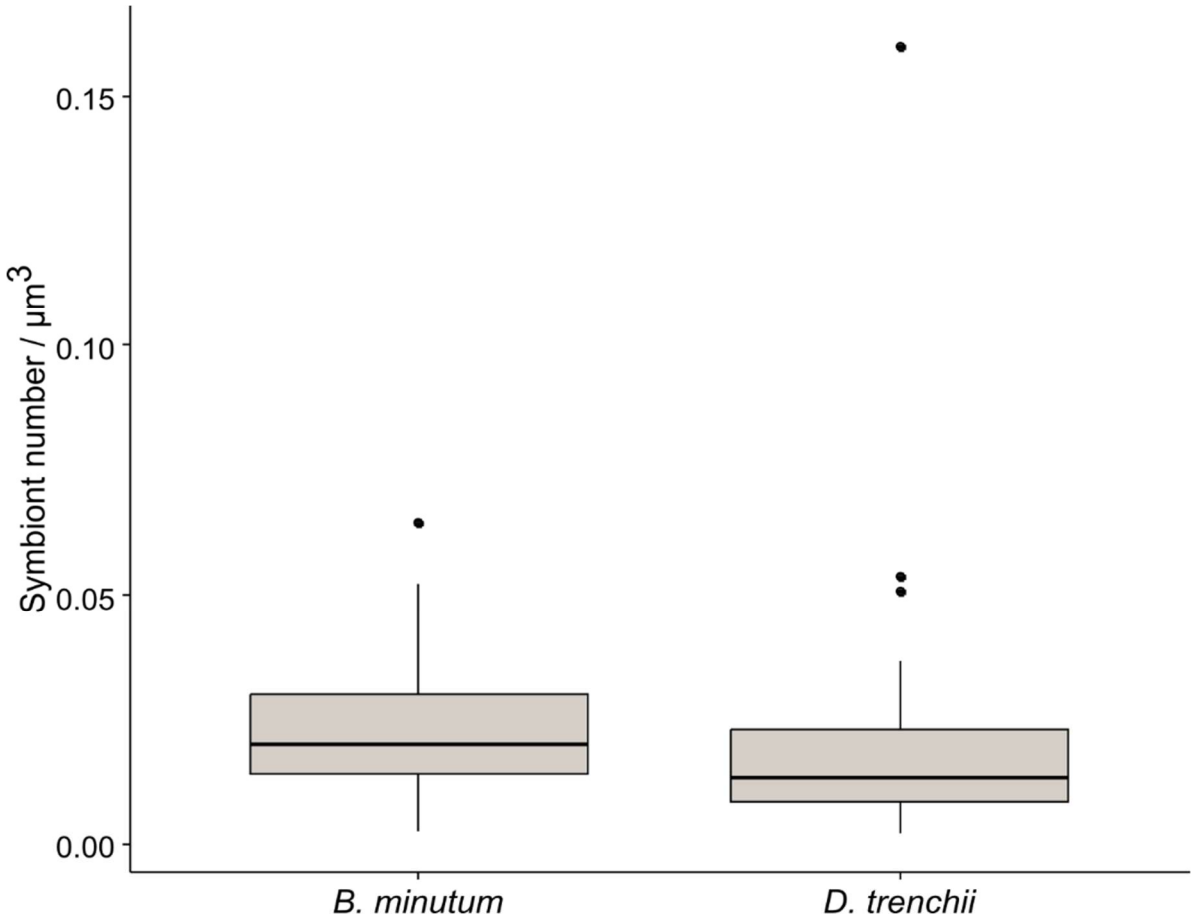

Figure S2.5 Symbiont density in anemones long term colonised with either *B. minutum* or *D. trenchii* (N = 58)

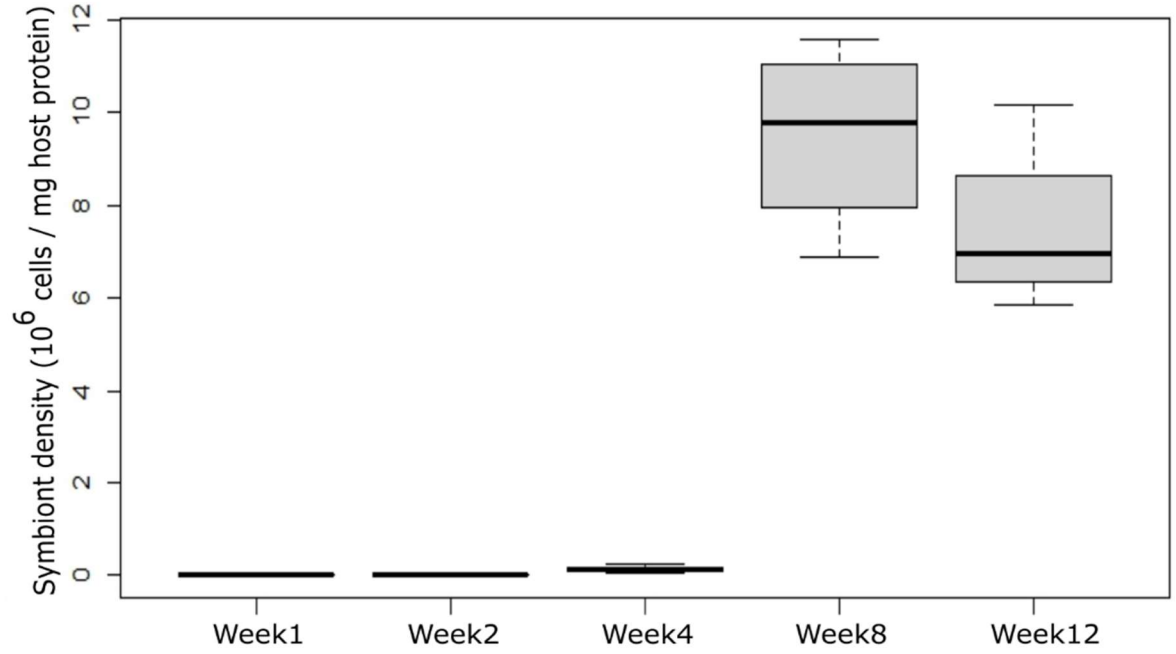

Figure S2.6 Symbiont density in anemones following the three months post-inoculation with *B. minutum* (N= 4).

Figure S2.7 Alignment between the protein XP_028518090.1 and the epitope of anti-GRIK2.