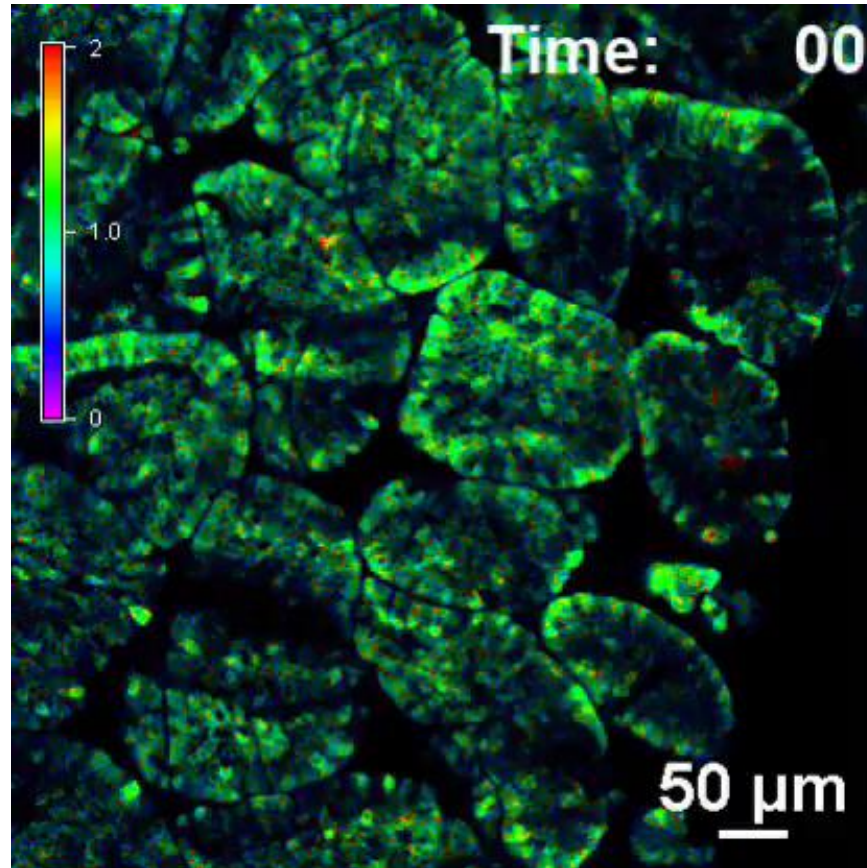
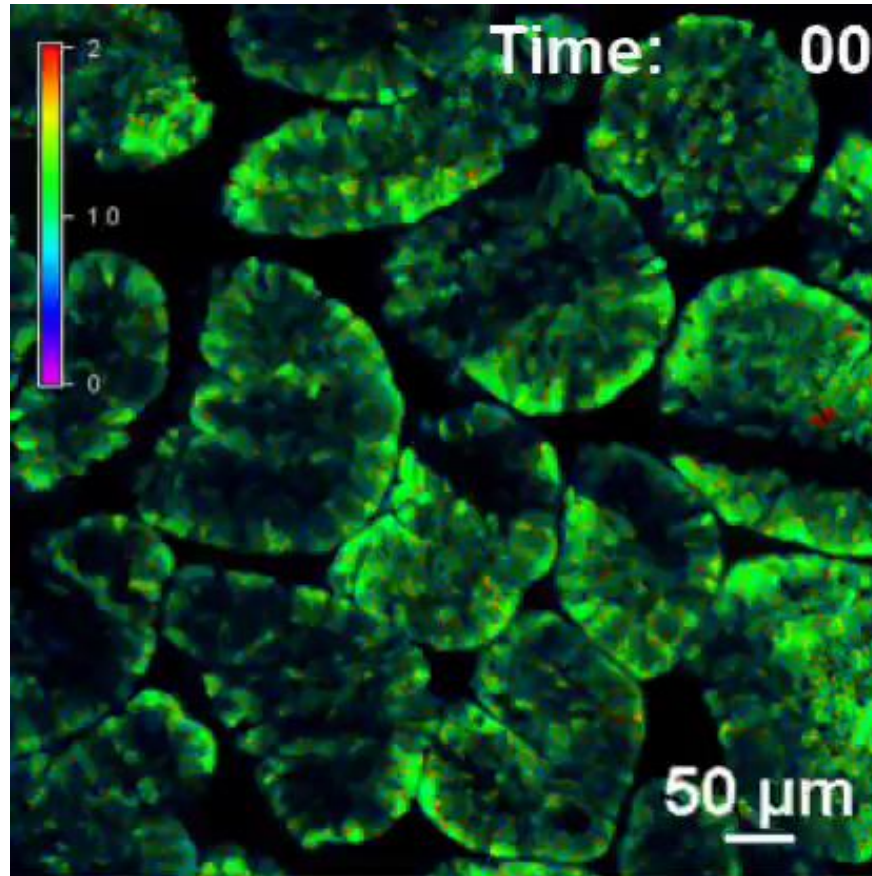


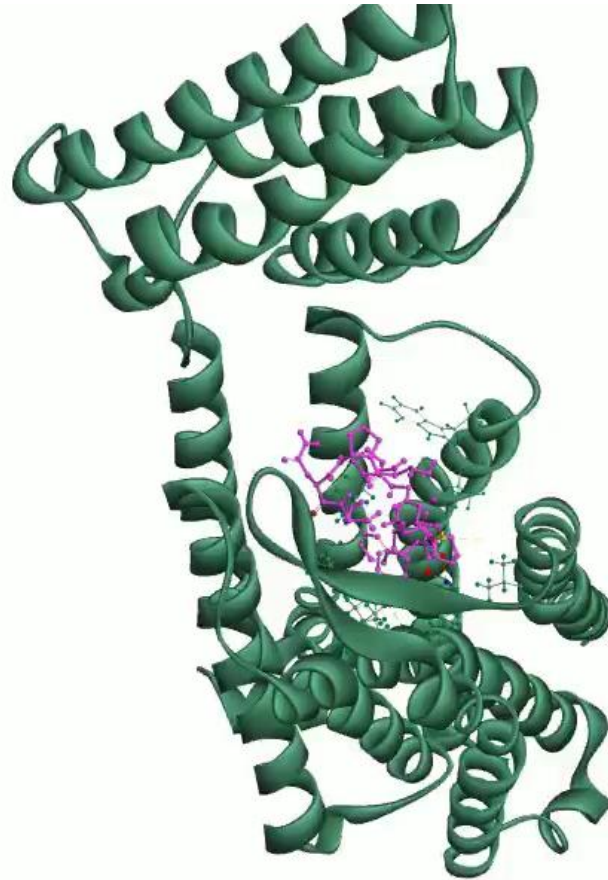
Supplementary Movie 1. Intravital Ca²⁺ imaging of the intestinal epithelial cells of a ubiquitous YC3.60-expressing mouse. Ratiometric images (YFP/CFP at excitation of 458 nm) were measured every 2 seconds for 2 min (approximately 2 frame/second). CM-10 (final concentration 20 μM) was added at 45 sec the indicated time point. Real acquisition time is indicated (top).



Supplementary Movie 2. Intravital Ca²⁺ imaging of the intestinal epithelial cells of a ubiquitous YC3.60-expressing mouse. Ratiometric images (YFP/CFP at excitation of 458 nm) were measured every 2 seconds for 50 sec (approximately 2 frame/second). CM-10 (final concentration 20 μM + DOR-A) was added at 15 sec the indicated time point in Fig. 6C. Real acquisition time is indicated (top).



Supplementary Movie 3. Intravital Ca²⁺ imaging of the intestinal epithelial cells of a ubiquitous YC3.60-expressing mouse. Ratiometric images (YFP/CFP at excitation of 458 nm) were measured every 2 seconds for 50 sec (approximately 2 frame/second). CM-10 (final concentration 20 μM + MOR-A) was added at 15 sec the indicated time point in Fig.6F. Real acquisition time is indicated (top).



Supplementary Movie 4. 3D movie of docking simulation of YPFPGPIPNS for DOR.