

Supplementary Materials

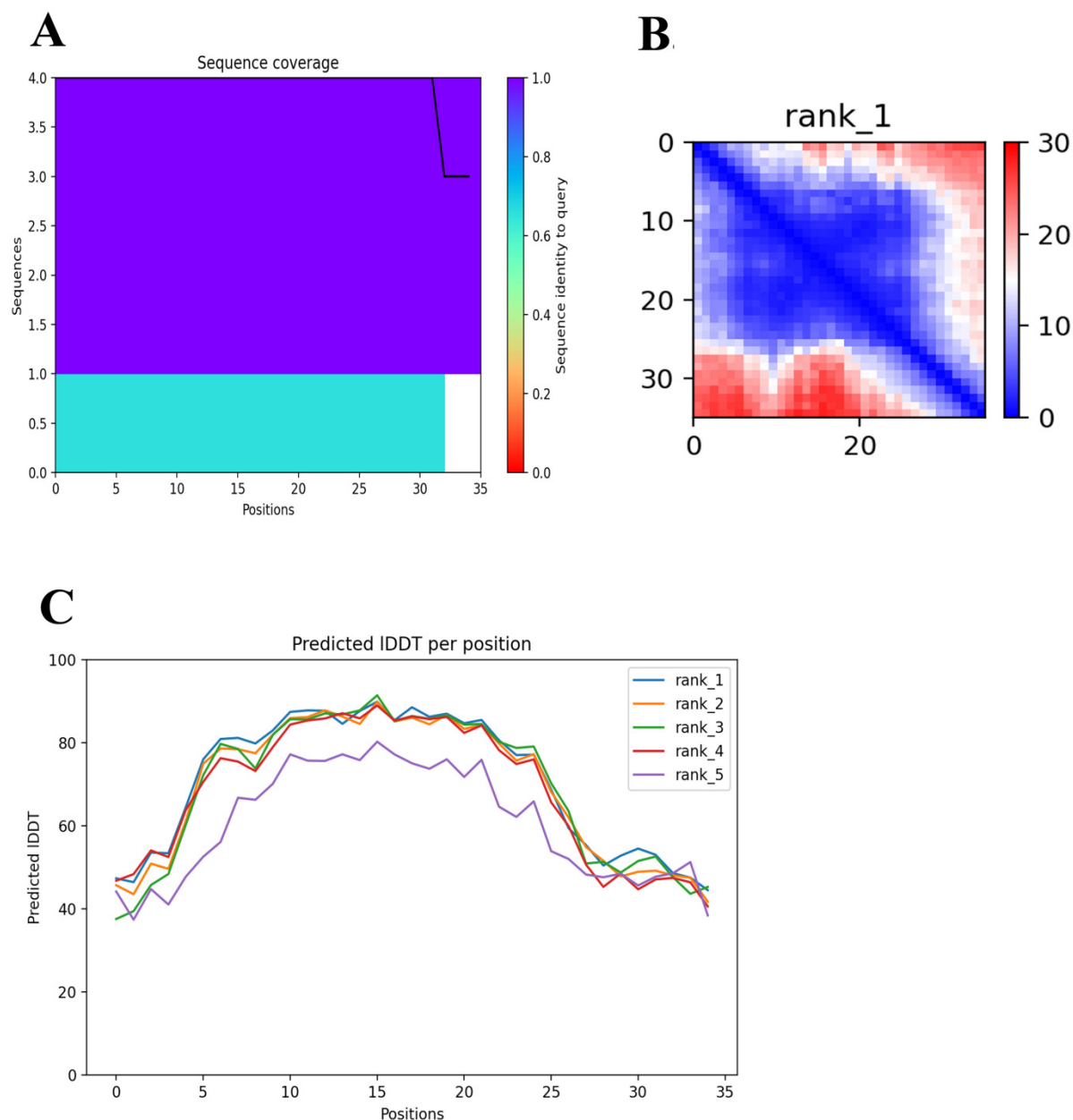


Figure S1. AlphaFold2 Colab quality plots for spatial structure model of Ms9a-1. **(A).** Number of sequences per position. **(B).** Predicted Alignment Error - AlphaFold's expected position error at residue x, when the predicted and true structures are aligned on residue y. The lower is the better. **C.** Predicted IDDT (Local Distance Difference Test) per position - model confidence (out of 100) at each position. The higher is the better.

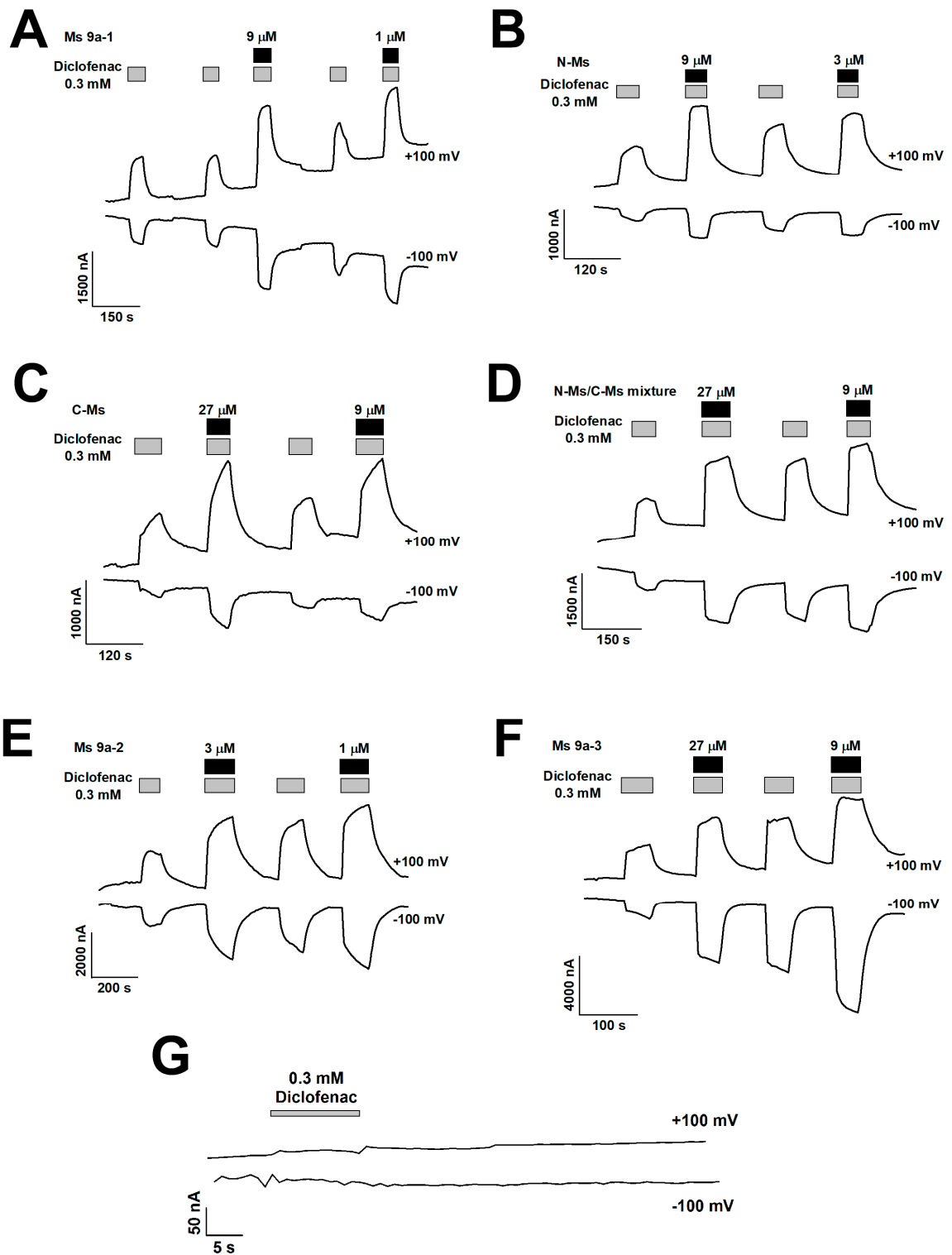


Figure S2. Action of peptides on diclofenac-induced inward and outward TRPA1 currents. Representative traces of Ms 9a-1 (**A**), N-Ms (**B**), C-Ms (**C**), N-Ms+C-Ms (**D**), Ms9a-2 (**E**), and Ms9a-3 (**F**) effects on whole-cell currents through *X. laevis* oocytes expressing rTRPA1. **G**, representative trace of diclofenac action on uninjected oocytes of *X. laevis*. The currents were evoked by 0.3 mM diclofenac and were recorded at +100 mV and -100 mV.