

**S3 Appendix. Range of action.** We have derived an analytical expression for the range of action (see Eq. (6) in the article). In this formula, we see that only three parameters in the model have an influence on the range of action of the donor cell: the rate of synthesis, the constant of degradation and the effective transport coefficient of the microRNA. Nevertheless, all the other remaining parameters have been studied as well. We have found, however, that changing their value does not affect the range of action as shown below.

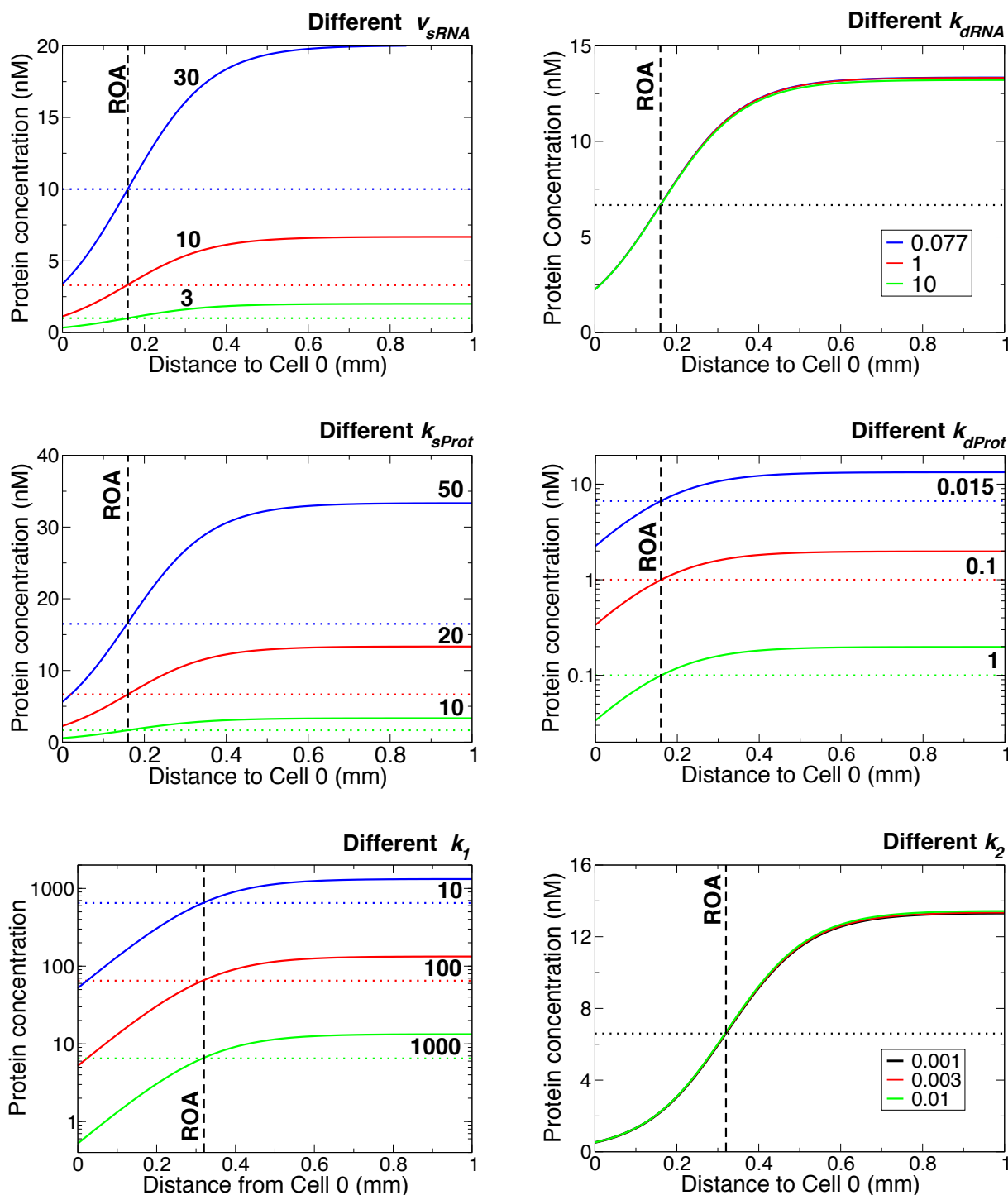


FIGURE 1. Protein concentration as a function of the distance from Cell 0 for different  $v_{sRNA}$ ,  $k_{dRNA}$ ,  $k_{sProt}$ ,  $k_{dProt}$ ,  $k_1$ ,  $k_2$ , from left to right, top to bottom. The ROA, defined as the distance from Cell 0 to which the basal protein concentration is halved, is shown to remain unaffected by varying those parameters.