

Bifurcation diagrams of the dynamic regimes of *de novo* protein synthesis at the activated synapse depending on the recycling contribution to the maintenance of the pool of active receptors on the postsynaptic membrane (k_{rz}).

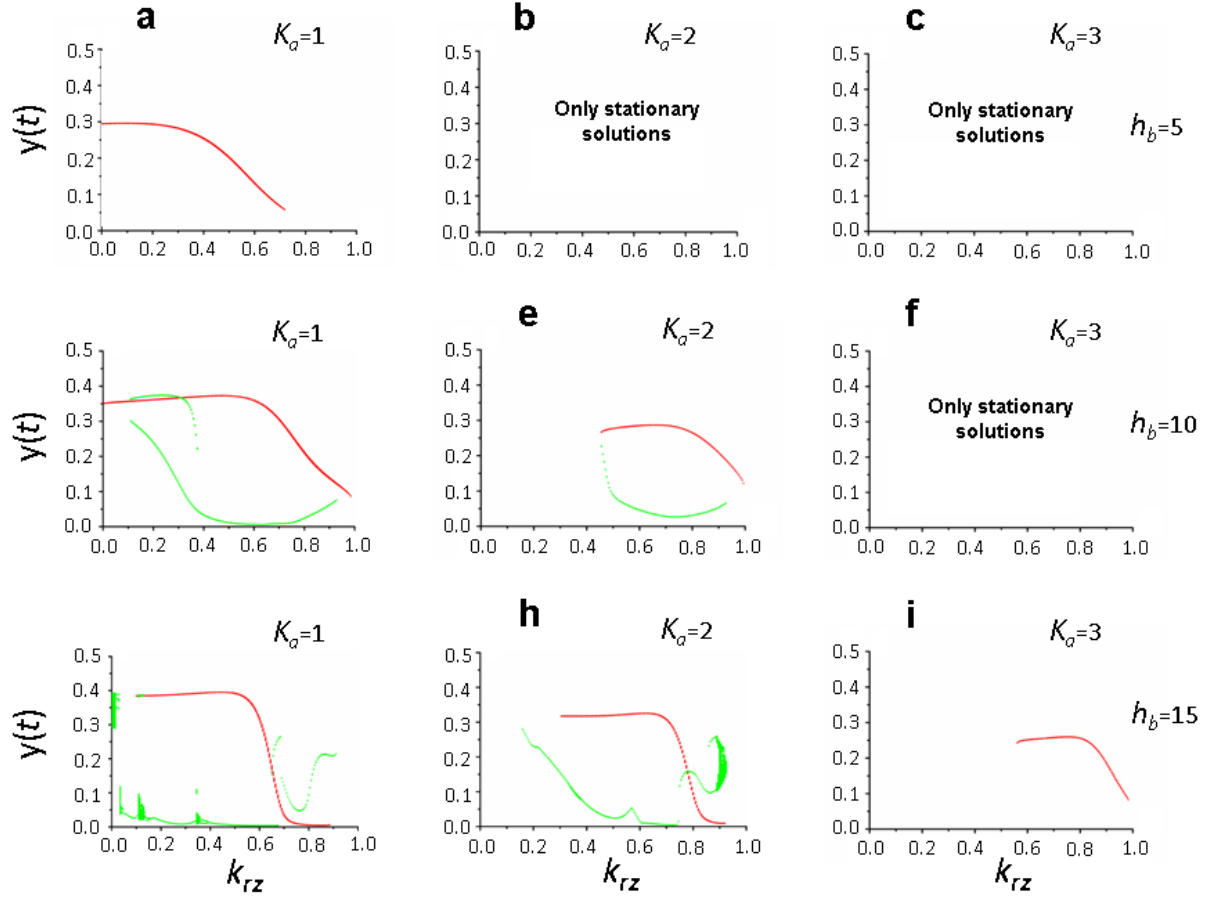


Fig. S4. Dynamic regimes of system (1) depending on the complexity and non-linearity of mTOR (h_b) and the influence of the glutamate-specific signal on translation activation (K_a).

Bifurcation diagram constructed at the intersection of the trajectory $(x(t), y(t))$ with the Poincaré map $x(t)=1$ (a-c), $x(t)=2$ (d-i) in the phase space (x, y, z) . Parameter values: $h_x = 2$, $k_x=20$, $k_b=200$, $\tau_a=1$, $\tau_b=2$, $\tau_r=3$, $\tau_e=3$ (a-i); $h_b = 5$ (a-c), $h_b = 10$ (d-f), $h_b = 15$ (g-i), $K_a=1$ (a, d, g), $K_a=2$ (b, e, h), $K_a=3$ (c, f, i). Values of the remaining parameters are shown in the basic set (2). Different colors indicate different branches of the system (1) solutions.