

Table 1. Predicted Hill coefficients for MAPK cascade components: Varying the assumed enzyme concentrations

Enzyme	Range of assumed concentrations	Range of effective Hill coefficients (nH) predicted for		
		MAPKKK	MAPKK	MAPK
MAPKKK	0.6–15 nM (3 nM [†])	0.9–1.0	1.6–1.7	3.8–5.1
MAPKK	0.24–6 μ M (1.2 μ M [†])	1.0	1.4–1.9	2.4–9.1
MAPK	0.24–6 μ M (1.2 μ M [†])	1.0	1.7	3.8–5.1
E2 (MAPKKK inactivase)	0.06–1.5 nM	1.0	1.7	4.9
MAPKK P'ase	0.06–1.5 nM	1.0–1.1	1.6–1.7	3.8–5.1
MAPK P'ase	24–600 nM	1.0	1.6–1.7	2.5–5.1

The assumed concentrations of each enzyme were individually varied over the ranges shown, with the assumed concentrations of the other five enzymes held constant. The effective Hill coefficients were calculated from the steepness of the predicted stimulus/response curves, as described in the text.

[†]The numbers shown in parentheses are estimated values for the concentrations of Mos (a MAPKKK), Mek-1 (a MAPKK), and p42 MAPK (a MAPK) in *Xenopus* oocytes. We initially assumed [E2] to be 0.3 nM, [MAPKK P'ase] to be 0.3 nM, and [MAPK P'ase] to be 120 nM. See text for details.