

Signal	Response	Maximum mutual information (bits)	Reference
TNF	NF- κ B	0.92 ± 0.01	Figs. 1D, 2C
TNF	ATF-2	0.85 ± 0.02	Figs. S6, 2C
TNF	NF- κ B and ATF-2	1.05 ± 0.02	Figs. 2C, 2D
PDGF	NF- κ B	0.67 ± 0.01	Fig. S11A
PDGF	ATF-2	0.74 ± 0.01	Figs. S2A, S11A
PDGF	NF- κ B and ATF-2	0.81 ± 0.02	Fig. S11A
EGF	Erk (fold-change)	0.60 ± 0.03	Fig. S2B, (23)
UDP	Peak Ca ²⁺	1.22 ± 0.03	Fig. S2C, (24)
UDP	Integrated Ca ²⁺	1.07 ± 0.02	Fig. S2C, (24)
Position	Doubly phosphorylated Erk	1.61 ± 0.05	Fig. S2D, (25)

Table S1. Experimentally measured channel capacity of various signaling pathways.