

## SUPPLEMENTARY DATASETS:

All datasets are provided in *DataPflex* format (Hendriks and Espelin 2009) (81). Files can be directly loaded into and plotted with *DataPflex*, a MATLAB-based application for the manipulation and visualization of multi-dimensional datasets.

**Dataset #1:** phosphoprotein and cytokine time course under multiple conditions with no inhibitors (data underlying Figure 2):

TimecourseNoInhibitors\_phospho.xls

TimecourseNoInhibitors \_cytokine.xls

**Dataset #2:** phosphoprotein and cytokine time course under multiple conditions with and without inhibitor pretreatment (data underlying Figure 3):

TimecourseWithInhibitors partA\_phospho.xls

TimecourseWithInhibitors partB \_phospho.xls

TimecourseWithInhibitors\_phospho\_combined.xls (phospho part A and part B separately normalized by the LPS signal at 120 min and combined)

TimecourseWithInhibitors partA cytokine.xls

TimecourseWithInhibitors partB \_cytokine.xls

TimecourseWithInhibitors\_cytokine\_combined.xls (cytokine part A and part B separately normalized by the LPS signal at 120 min and combined)

**Dataset #3:** p38 inhibitors vs. TNF $\alpha$ -neutralizing antibodies: cytokine time course of the effect of p38 inhibition vs. TNF $\alpha$  neutralization under multiple conditions (data underlying Figure 6):

p38i\_vs\_antiTNFAb\_cytokine.xls