SUPPORTING INFORMATION

Benzoquinone, a leukemogenic metabolite of benzene, catalytically inhibits the tyrosine phosphatase PTPN2 and alters STAT1 signaling

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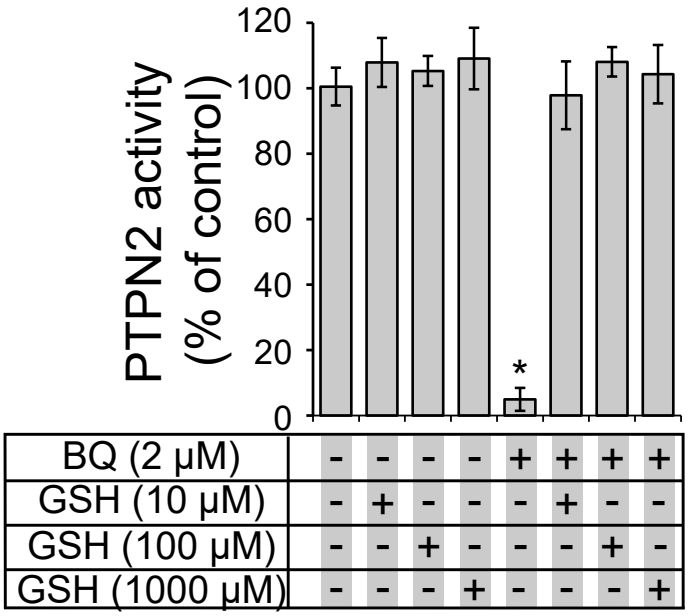

Figure S1. Effects of 1,4-benzoquinone (BQ) on PTPN2 in the presence of reduced glutathione (GSH)

Human PTPN2 (0.5 μM) was incubated with BQ (2 mM) in presence of different concentrations of GSH for 20 min at 37 °C. Residual PTPN2 activity was measured using pNPP assay. Error bars indicate S.D. values. *$p<0.05$ compared with controls.

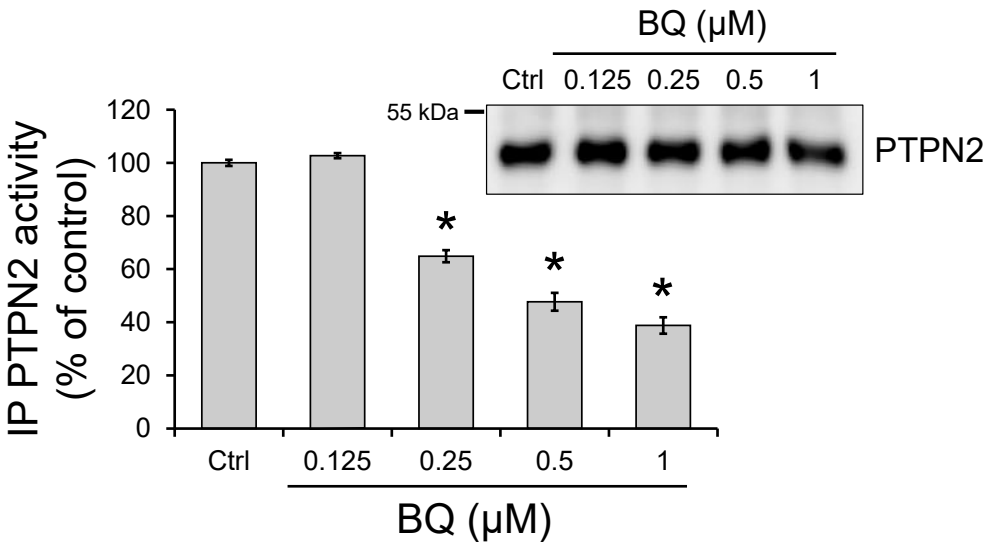

Figure S2. Dose-dependent inhibition of PTPN2 in Jurkat cells exposed to 1,4-benzoquinone (BQ)

Jurkat cells (5.10^6) were treated with DMSO (Ctrl) or 1,4-benzoquinone (BQ) for 30 min in PBS. Cells were washed and endogenous PTPN2 activity was assessed by immunoprecipitation of PTPN2 followed by RP-UFLC analysis. Error bars indicate means ± S.D. *p<0.05 compared with control (Ctrl). Immunobeads were separated and analased by western blot using anti-PTPN2 antibody (INSET).

Supplementary Table 1: qPCR Primers used in gene expression analysis

Gene	Accession No.	Primer sequences (5' → 3')	Product size (bp)
IRF1	NM_002198.2	CAACAGATGAGGATGAGGAAGGGAA CCATAGACAGAGGTGGGCTGG	139
GBP1	NM_002053.2	ACAGGGTCCAGTTGCTGAAAGA TTGGTTAGGGGTGACAGGAAGG	198
APOL1	NM_003661.3	GCTGCTGCTGAACTGCCC TCTGTACTGCTGGCCTTTATCGT	117
RPL19	NM_000981.3	GGCTCGCCTCTAGTGTCCTC CAAGGTGTTTTTCCGGCATC	179