

## Overview of Supplemental Tables

### Supplemental Table S1

List of all phosphopeptides corresponding to those phosphoproteins identified with IPI that could be mapped to a Swiss-Prot accession number. The table includes information on the status of the identified phosphosites (known, known by similarity, novel) extracted from Swiss-Prot and all phosphorylation sites of the corresponding proteins listed in Swiss-Prot.

### Supplemental Table S2

List of all unique peptides identified in at least two biological replicates after 30 min of TCDD treatment. The table includes information on gene ontology (GO), accession numbers, normalized SILAC ratios heavy/light (H/L) (= ratios TCDD/DMSO) for the individual biological replicates and statistics (p- and q-values) as well as ion scores and PTM scores for the individual biological replicates.

### Supplemental Table S3

List of all unique peptides identified in just one biological replicate after 30 min of TCDD treatment. The table includes information on the ion scores and PTM scores, gene ontology (GO), accession numbers and the normalized SILAC ratio heavy/light (H/L) (= ratio TCDD/DMSO).

### Supplemental Table S4

List of all unique peptides identified in at least two biological replicates after 1 hour of TCDD treatment. The table includes information on gene ontology (GO), accession numbers, normalized SILAC ratios heavy/light (H/L) (= ratios TCDD/DMSO) for the individual biological replicates and statistics (p- and q-values) as well as ion scores and PTM scores for the individual biological replicates.

### Supplemental Table S5

List of all unique peptides identified in just one biological replicate after 1 hour of TCDD treatment. The table includes information on the ion scores and PTM scores, gene ontology (GO), accession numbers and the normalized SILAC ratio heavy/light (H/L) (= ratio TCDD/DMSO).

### Supplemental Table S6

List of all unique peptides identified in at least two biological replicates after 2 hours of TCDD treatment. The table includes information on gene ontology (GO), accession numbers, normalized SILAC ratios heavy/light (H/L) (= ratios TCDD/DMSO) for the individual biological replicates and statistics (p- and q-values) as well as ion scores and PTM scores for the individual biological replicates.

### Supplemental Table S7

List of all unique peptides identified in just one biological replicate after 2 hours of TCDD treatment. The table includes information on the ion scores and PTM scores, gene ontology (GO), accession numbers and the normalized SILAC ratio heavy/light (H/L) (= ratio TCDD/DMSO).

**Supplemental Table S8**

List of all phosphopeptides and non-phosphorylated peptides identified for proteins for which a regulated phosphopeptide was observed. The table includes information on the normalized SILAC ratios H/L (= ratio TCDD/DMSO) obtained for the individual exposure periods. Ratios exhibiting a q-value of  $\leq 0.05$  for peptides observed in at least two biological replicates per exposure period and ratios corresponding to an FC value  $\geq 1.5$  for peptides observed in just one biological replicate per exposure period are indicated in bold type.

**Supplemental Table S9**

Summary list of all TCDD-regulated phosphopeptides. The table includes information on the phosphopeptide sequence, the position of the phosphosite within the protein and the normalized SILAC ratios H/L (= ratio TCDD/DMSO) obtained for all exposure periods. Ratios exhibiting a q-value of  $\leq 0.05$  for peptides observed in at least two biological replicates per exposure period and ratios corresponding to an FC value  $\geq 1.5$  for peptides observed in just one biological replicate per exposure period are indicated in bold type.