Chiusa et al. Supplementary Information

Supplementary Table of Content

Supplementary Table 1. List of primary antibodies used for Western blot

Antibody	Vendor	Catalog #
β-actin	Cell Signaling	4970
DDR1	Santa Cruz Biotechnology	sc-532
pY792-DDR1	Cell Signaling	5174
pY513-DDR1	Cell Signaling	14531
GAPDH	Cell Signaling	5174
GFP	Roche	11814460001
HDAC2	Santa Cruz Biotechnology	sc-6296
histone H3	Cell Signaling	3638
NMHC-IIA	Santa Cruz Biotechnology	sc-98978 or sc-47199
PARP1	Cell Signaling	9532
RBBP4	Abcam	ab1765
SEC61β	Cell Signaling	14648
α-tubulin	Santa Cruz Biotechnology	sc-8035

Supplementary Table 2. Mass spectrometry identification of some of the immunoprecipitated DDR1-interacting proteins from HEK-DDR1-GFP expressing cells treated with either vehicle (acetic acid) or collagen I.

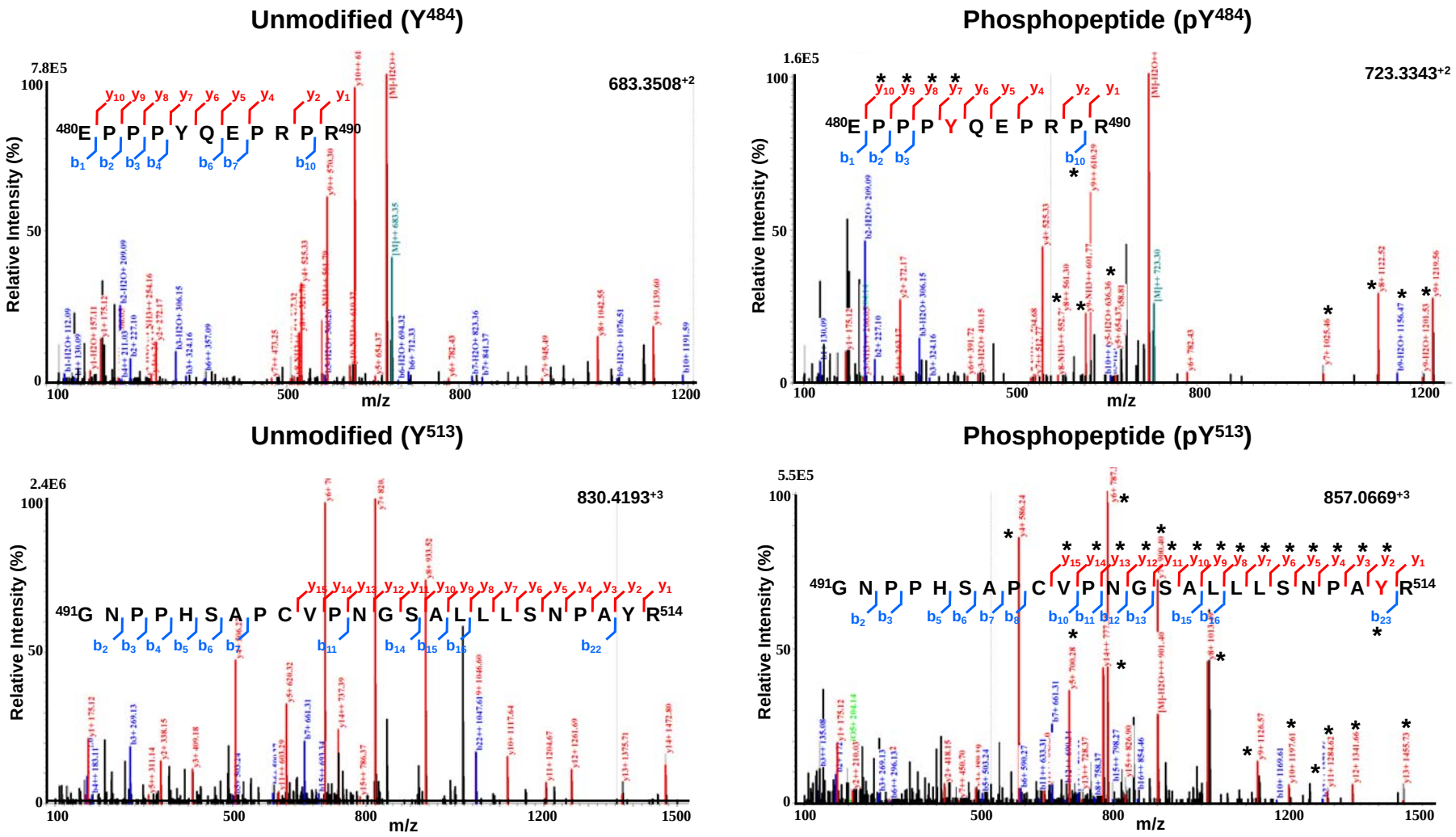
	Spectral Counts[1]		
DDR1-interacting candidate	**Vehicle**	**Collagen I**	**Group assignment**
ACTBL (actin β like)	0	8	Collagen I[2]
IPO5 (importin-5)	0	2	Collagen I
RBBP4	0	2	Collagen I
SC61B	0	2	Collagen I
DDR1	296	264	Common[3]
ACTB (β-actin)	26	27	Common
KPNB1 (importin-β)	25	16	Common
CFL1 (cofilin 1)	10	13	Common
MYH9 (NMHCII-A)	2	4	Common

[1] Total number of filtered spectra for all identified peptides in each protein group

[2] Proteins uniquely present in DDR1 immunoprecipitates of collagen I-treated cells

[3] Proteins present in DDR1 immunoprecipitates from both vehicle- and collagen I-treated cells

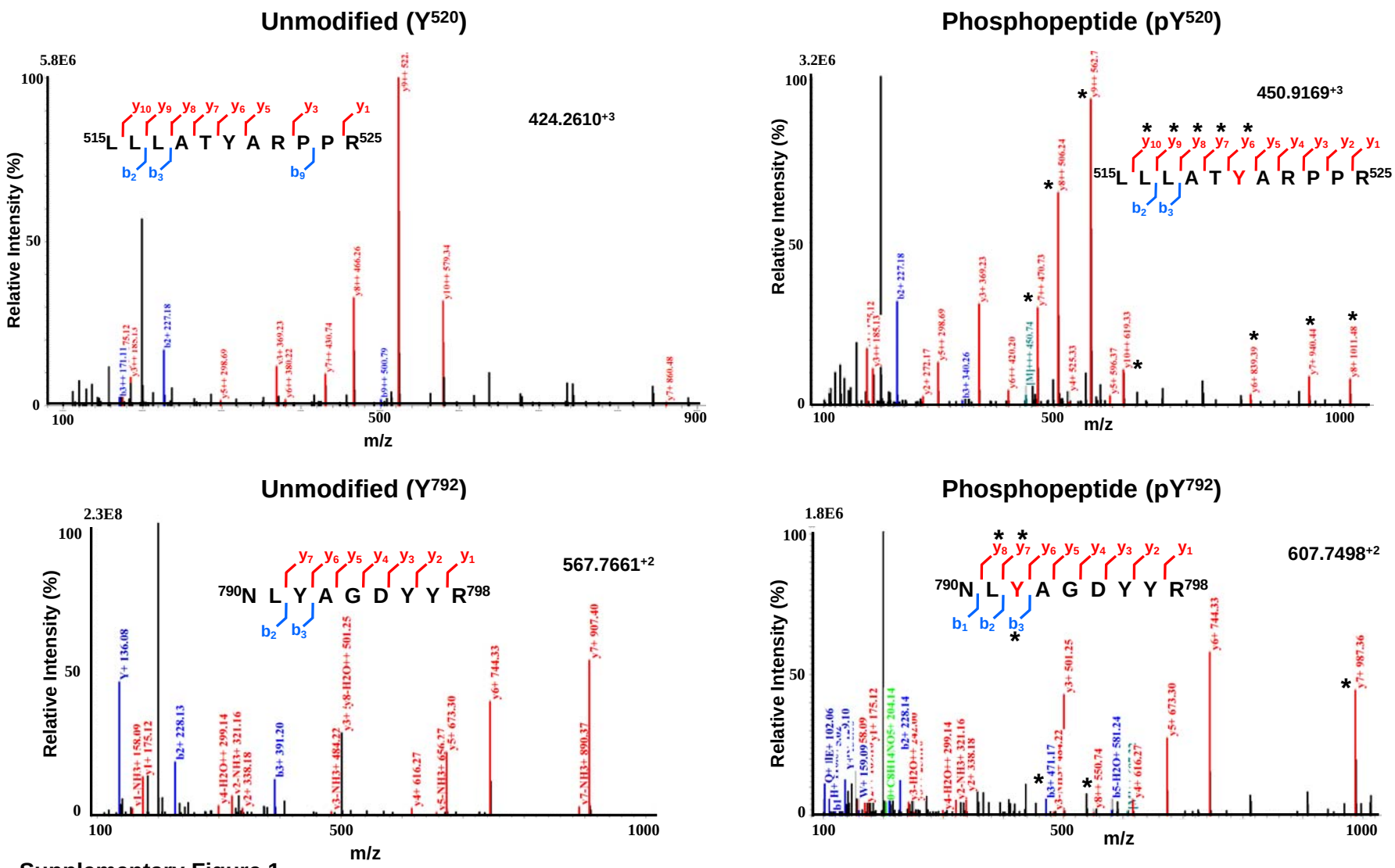
Chiusa M. et al., Supplmentary Figure 1



Supplementary Figure 1

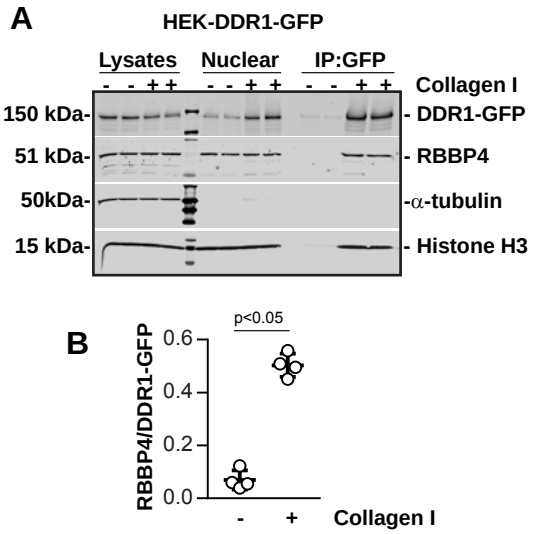
Mass spectrometry identification of DDR1 phosphotyrosine peptides in collagen I-treated HEK-DDR1-GFP cells. Peptide spectrum matches (PSMs) of unmodified and phosphorylated peptides (Y^{484} and Y^{513}) from human DDR1. The b-ion (blue) and y-ion (red) series in each PSM were annotated using pLABEL v2.4.0.5 (Wang L.H. et al., Rapid Commun Mass Spectrom 21, 2985-2991, 2007). The asterisk (*) indicates fragments containing the phosphorylated tyrosine. Phosphorylated tyrosine residues are highlighted in red within the peptide sequence shown above each MS/MS spectrum.

Chiusa M. et al., Supplmentary Figure 1



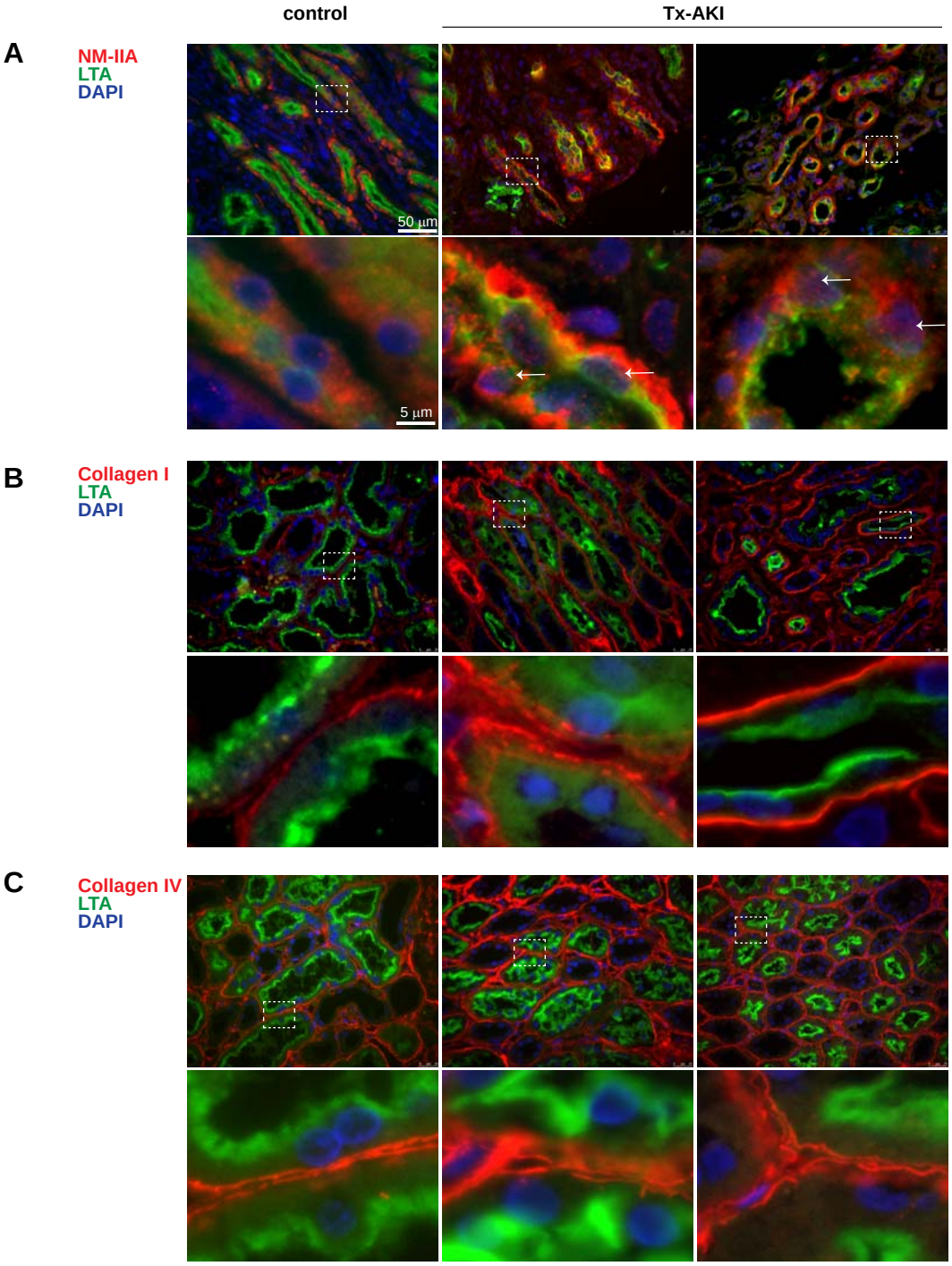
Supplementary Figure 1

Mass spectrometry identification of DDR1 phosphotyrosine peptides in collagen I-treated HEK-DDR1-GFP cells. Peptide spectrum matches (PSMs) of unmodified and phosphorylated peptides (Y^{520} and Y^{792}) from human DDR1. The b-ion (blue) and y-ion (red) series in each PSM were annotated using pLABEL v2.4.0.5 (Wang L.H. et al., Rapid Commun Mass Spectrom 21, 2985-2991, 2007). The asterisk (*) indicates fragments containing the phosphorylated tyrosine. Phosphorylated tyrosine residues are highlighted in red within the peptide sequence shown above each MS/MS spectrum.



Supplementary Figure 2

Nuclear DDR1 forms a complex with RBBP4. (**A**) Serum-starved HEK-DDR1-GFP cells were treated with acetic acid (20 mM) or collagen I (50 µg/ml) for 1 hour. Nuclear lysates (200 µg) were immunoprecipitated with GFP-TRAP beads and the immunoprecipitates were analyzed by Western blot for levels of DDR1-GFP and RBBP4. α-tubulin and histone H3 were used to evaluate purity of the fractions. Histone H3 co-immunoprecipitated with DDR1-GFP and RBBP4 only in cells stimulated with collagen I. Lysates and nuclear represent total and nuclear (both 20 µg) proteins analyzed for total levels of DDR1-GFP, RBBP4, α-tubulin or histone H3. (**B**) DDR1-GFP and RBBP4 bands were quantified by densitometry. Values represent RBBP4/DDR1-GFP ratio and are the mean ± SD of 2 experiments performed in duplicate.



Supplementary Figure 3

Analysis of collagens and NMHC-IIA localization in injured human kidneys. Paraffin kidney sections from control or 2 patients with Tx-AKI were stained with NM-IIA antibody and LTA (**A**), collagen I antibody and LTA (**B**), or collagen IV antibody and LTA (**C**) and analyzed by confocal microscopy. Expression of NM IIA becomes evident in the nuclei of injured proximal tubules (arrow). Note increaed expression of both collagen IV and collagen I around injured proximal tubules.