Supplementary table 1: SNO-proteins enriched ≥1.4 fold in injured *Akr1a1*$^{-/-}$ kidneys vs. *Akr1a1*$^{+/+}$, detected by SNO-RAC-coupled quantitative iTRAQ MS.

Protein Hit order in MS	Accession UniProtKB	Description	Symbol	Gel1	Gel2	Gel3	Average
1	P68369	Tubulin alpha-1A chain	Tuba1a	2.99	3.08	2.02	2.70
2	P85094	Isochorismatase domain-containing protein 2A	Isoc2a	3.06	2.86	1.93	2.62
3	Q91Y97	Fructose-bisphosphate aldolase B	Aldob	3.39	1.93	2.03	2.45
4	Q8CHT0	Aldehyde dehydrogenase 4A1 precursor	Aldh4a1	2.89	2.21	2.22	2.44
5	Q62433	Protein NDRG1	Ndrg1	2.15	2.65	2.32	2.37
6	Q9Z2V4	Phosphoenolpyruvate carboxykinase	Pck1	2.62	1.68	2.78	2.36
7	P10126	Eef1a1 Elongation factor 1-alpha 1	Eef1a1	1.81	3.15	2.08	2.34
8	Q9WUM5	Succinyl-CoA ligase [GDP-forming] subunit alpha	Suclg1	3.46	1.75	1.68	2.30
9	Q3TNA1	Xylulose kinase	Xylb	2.67	2.42	1.78	2.29
10	P16460	Argininosuccinate synthase	Ass1	3.27	1.46	1.68	2.14
11	O88844	Isocitrate dehydrogenase 1 (NADP+)	Idh1	2.64	1.75	1.86	2.08
12	P05064	Fructose-bisphosphate aldolase A	Aldoa	2.25	1.92	1.97	2.05
13	Q9D6R2	Isoform 1 of Isocitrate dehydrogenase [NAD] subunit alpha	Idh3a	2.17	1.73	2.06	1.99
14	Q99LB7	Sarcosine dehydrogenase	Sardh	1.49	2.28	2.14	1.97
15	P26443	Glutamate dehydrogenase 1	Glud1	1.80	1.97	2.08	1.95
16	P54071	Socitrate dehydrogenase [NADP]	Idh2	2.35	1.68	1.81	1.95
17	P58252	Elongation factor 2	Eef2	2.06	1.78	1.92	1.92
18	P09411	Phosphoglycerate kinase 1	Pgk1	2.29	1.50	1.93	1.90
19	P40142	Transketolase	Tkt	1.91	1.99	1.81	1.90
20	Q9DBJ1	Phosphoglycerate mutase 1	Pgam1	2.18	1.63	1.88	1.89
21	Q91ZA3	Propionyl-CoA carboxylase alpha chain	Pcca	1.88	1.78	1.97	1.88
22	P16125	L-lactate dehydrogenase B chain	Ldhb	2.28	1.53	1.82	1.88
23	O08709	Isoform Cytoplasmic+peroxisomal of Peroxiredoxin-5	Prdx5	2.43	1.41	1.79	1.88
24	P11499	MCG18238	Hsp90ab1	2.09	1.61	1.93	1.88
25	P17563	LOC100044204 Selenium-binding protein 1	Selenbp1	2.30	1.48	1.75	1.85
26	Q9JLJ2	Aldehyde dehydrogenase 9A1	Aldh9a1	2.06	1.43	2.03	1.84
27	Q8VC30	Bifunctional ATP-dependent dihydroxyacetone kinase/FAD-AMP lyase	Dak	2.41	1.50	1.57	1.83
28	Q8BWT1	Acaa2 3-ketoacyl-CoA thiolase	Acaa2	1.86	1.94	1.68	1.83
29	P63038	Hspd1 Isoform 1 of 60 kDa heat shock protein	Hspd1	1.98	1.48	1.93	1.80
30	Q9CZU6	Citrate synthase	Cs	2.11	1.56	1.71	1.79
31	P51174	Long-chain acyl-CoA dehydrogenase precursor	Acadl	1.93	1.57	1.86	1.79

32	Q99KI0	Aconitate hydratase	Aco2	1.98	1.46	1.91	1.78
33	Q05920	Pyruvate carboxylase	Pcx	2.12	1.45	1.77	1.78
34	Q9EQ20	Methylmalonate-semialdehyde dehydrogenase [acylating]	Aldh6a1	1.99	1.56	1.74	1.76
35	P05202	Aspartate aminotransferase	Got2	1.85	1.46	1.96	1.76
36	P08249	Malate dehydrogenase	Mdh2	1.86	1.47	1.92	1.75
37	Q922D8	C-1-tetrahydrofolate synthase	Mthfd1	1.98	1.71	1.53	1.74
38	Q61425	Hydroxyacyl-coenzyme A dehydrogenase	Hadh	1.99	1.46	1.76	1.74
39	P06801	cytosolic malic enzyme 1	Me1	2.18	1.49	1.53	1.73
40	Q60597	2-oxoglutarate dehydrogenase E1 component	Ogdh	1.69	1.50	1.87	1.69
41	Q99NB1	Acetyl-coenzyme A synthetase 2-like	Acss1	1.44	1.86	1.72	1.68
42	Q3TC72	Fumarylacetoacetate hydrolase domain-containing protein 2A	Fahd2a	1.85	1.41	1.69	1.65
43	P52480	Isoform M2 of Pyruvate kinase isozymes M1/M2	Pkm2	1.52	1.68	1.63	1.61
44	Q99MN9	Propionyl Coenzyme A carboxylase	Pccb	1.63	1.41	1.75	1.60
45	P42125	Dodecenoyl-Coenzyme A delta isomerase precursor	Dci	1.53	1.48	1.65	1.55