Psychological distress and lack of PINK1 promote bioenergetics alterations in peripheral blood mononuclear cells

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Supplementary Figure S1

We attached raw images of Western blots performed to analyze the levels of antioxidants DJ1 (23 kDa), TOM20 (17 kDa), SOD1 (17 kDa), SOD2 (24 kDa) and BDNF (14 and 28 kDa) expression in PBMCs derived from stressed and unstressed WT and PINK1-KO rats.

Please note that separate gels were preformed for TOM20 and DJ1 study from SOD1, SOD2 and BDNF to avoid overlapping of the bands, as proteins have approximately same molecular weight. β-tubulin (50 kDa) was used as internal control.

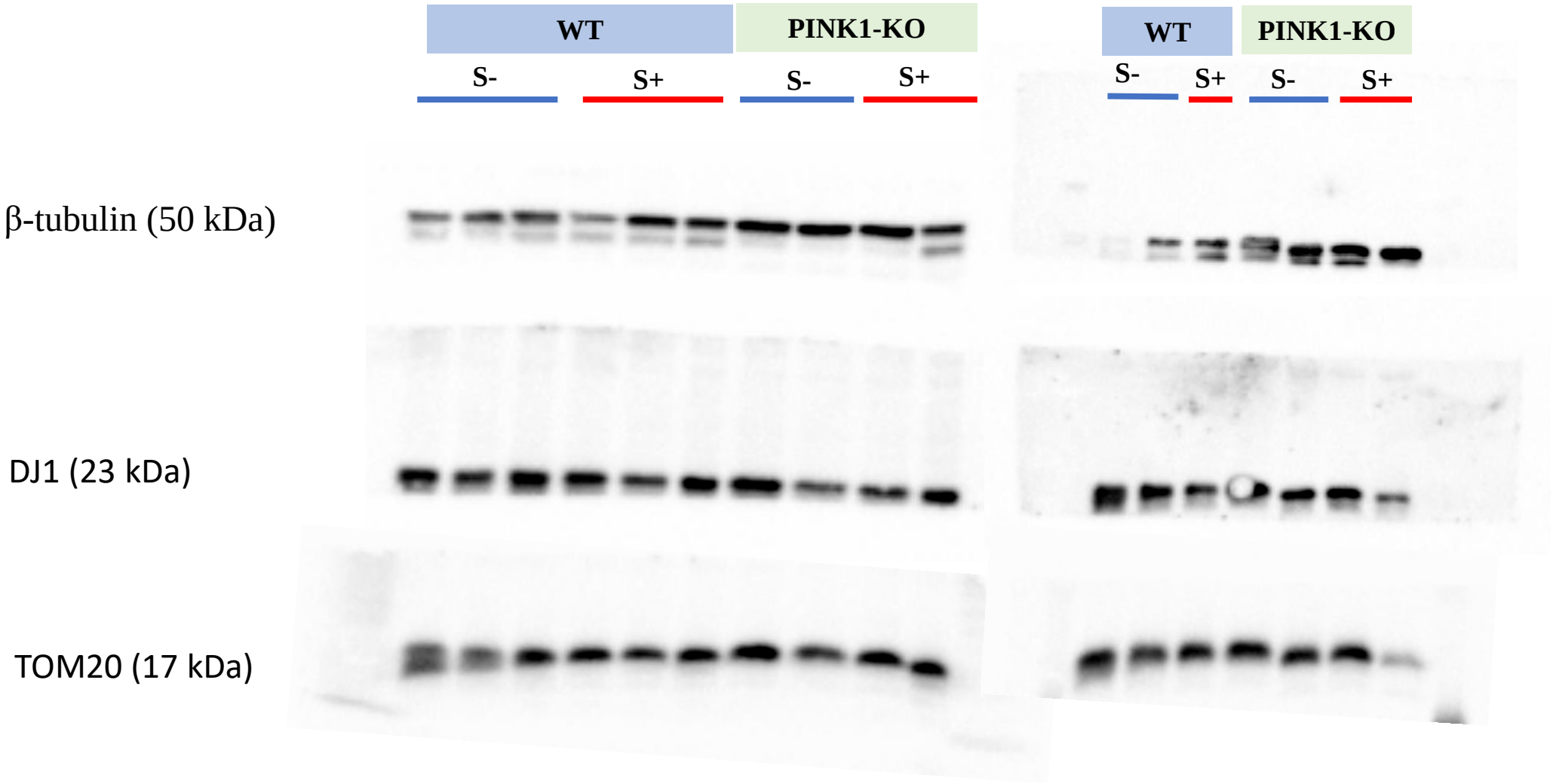
Each blot was cut in three parts under 50 kDa (for β-tubulin) and under 20 kDa (for SOD2/ DJ1/ mBDNF) to separate the membrane where TOM20 or SOD1 are expressed. Each membrane was separately incubated with the corresponding antibodies.

For the data analysis, we have excluded 4 Western blot lanes that showed little to no β-tubulin immunoreactivity.

Supplementary Figure S1

MALES - Acute effect

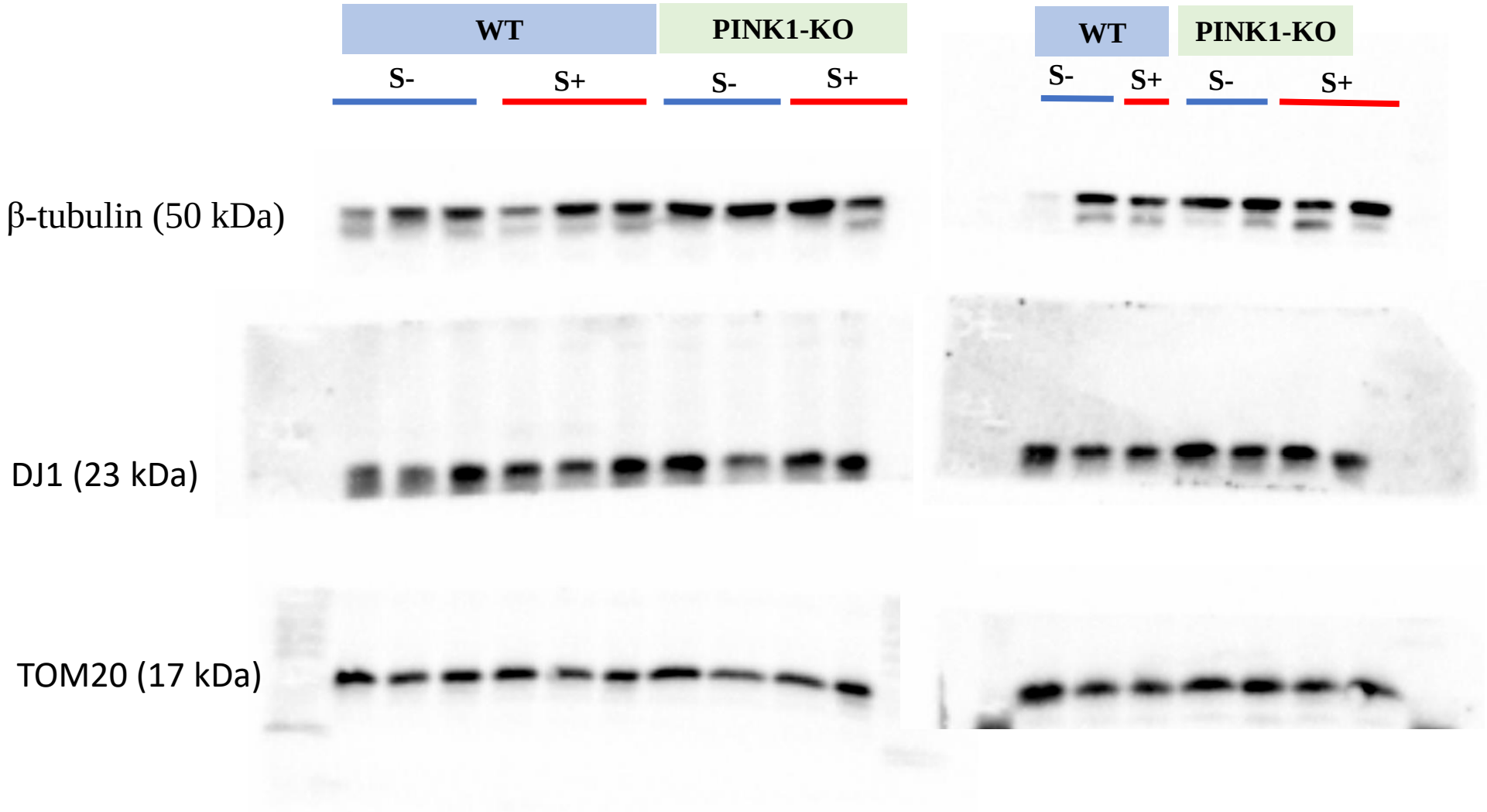
Blot 1 for DJ1 and TOM20



Supplementary Figure S1

MALES - Acute effect

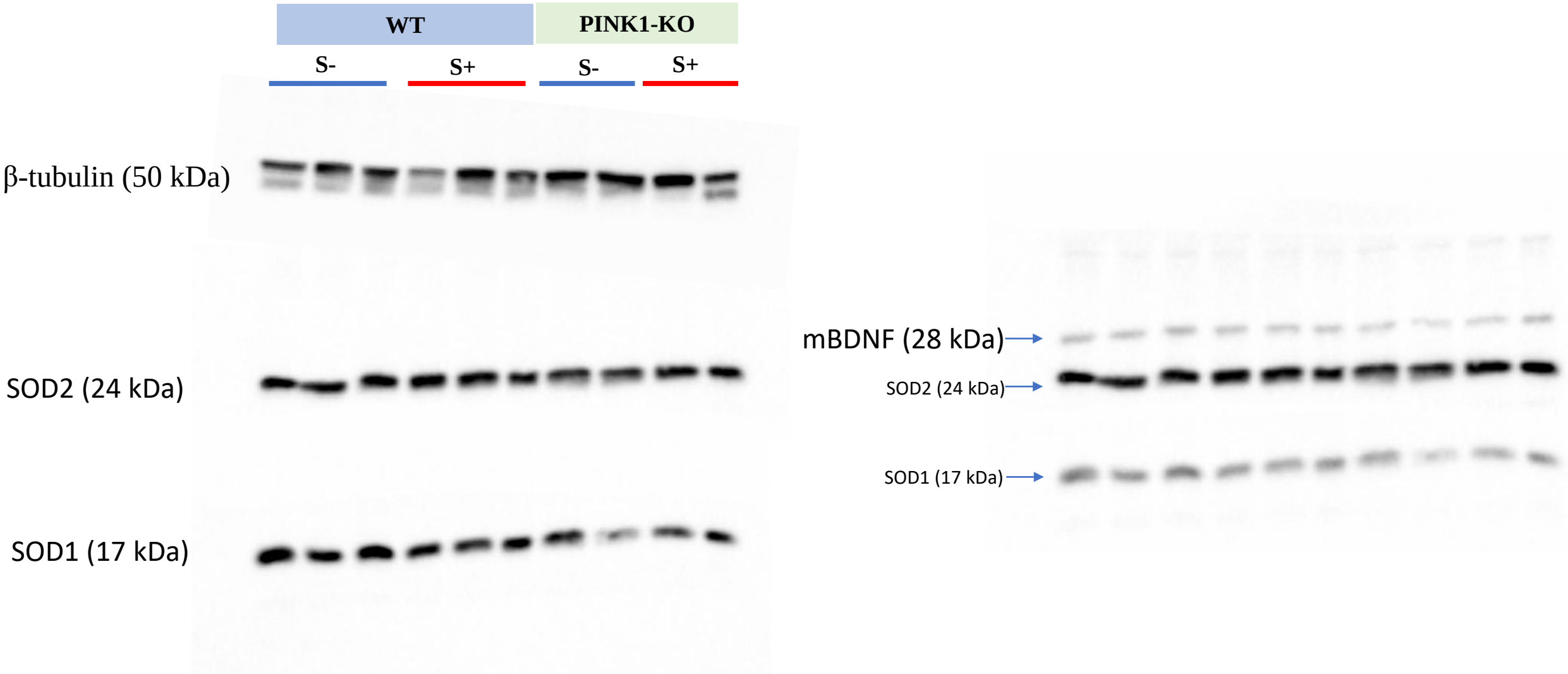
Blot 2 for DJ1 and TOM20



Supplementary Figure S1

MALES - Acute effect

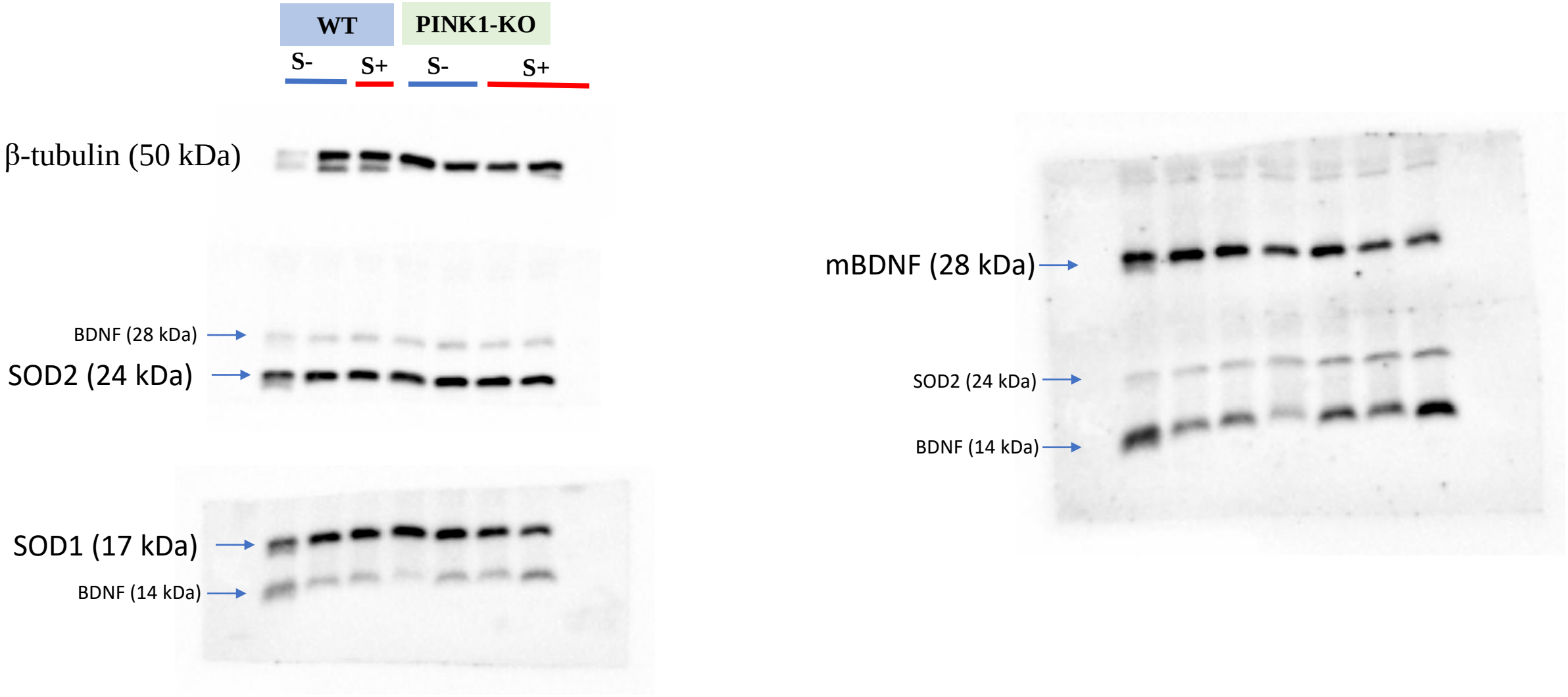
Blot 1 for SOD1, SOD2, BDNF



Supplementary Figure S1

MALES - Acute effect

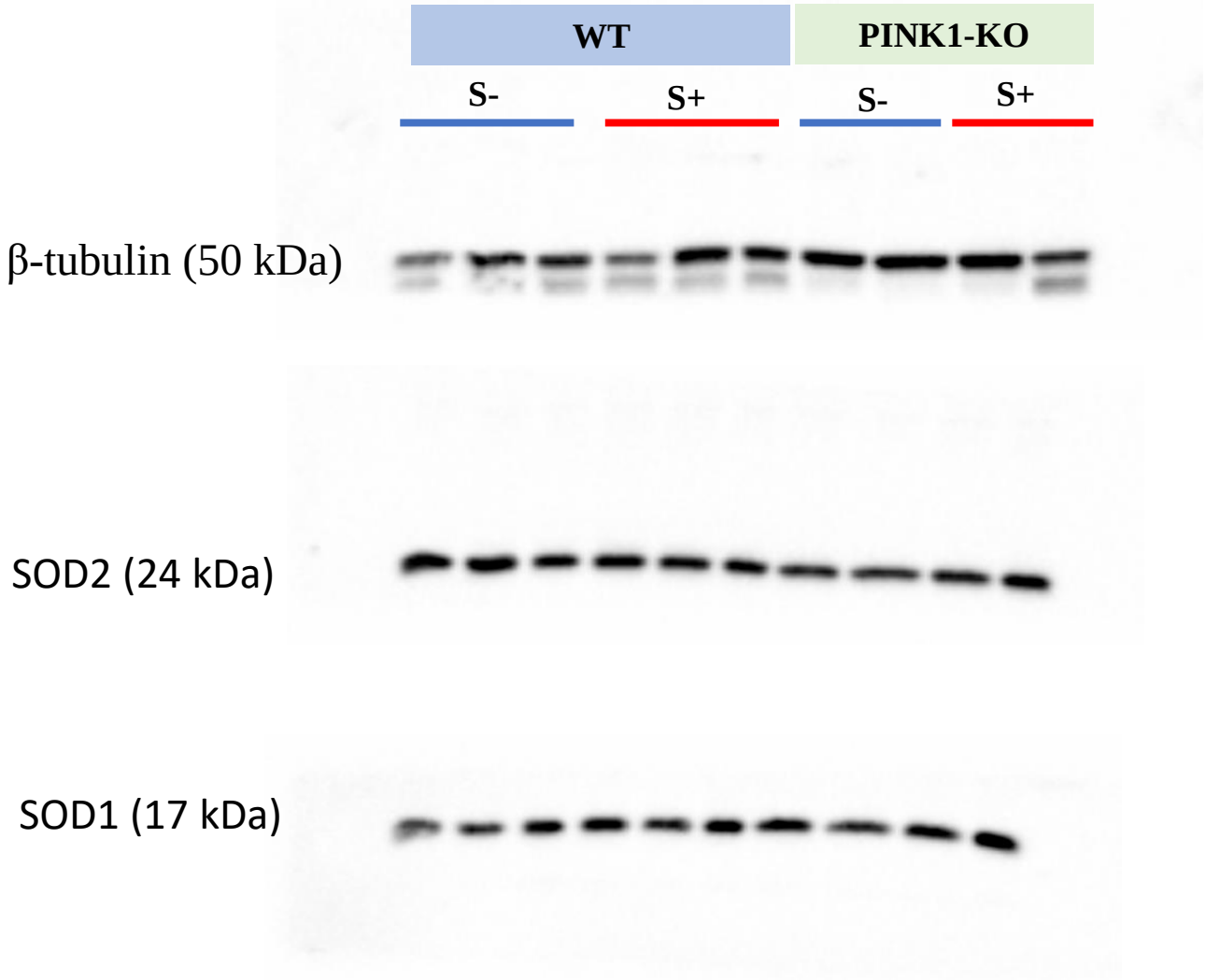
Blot 1 for SOD1, SOD2, BDNF

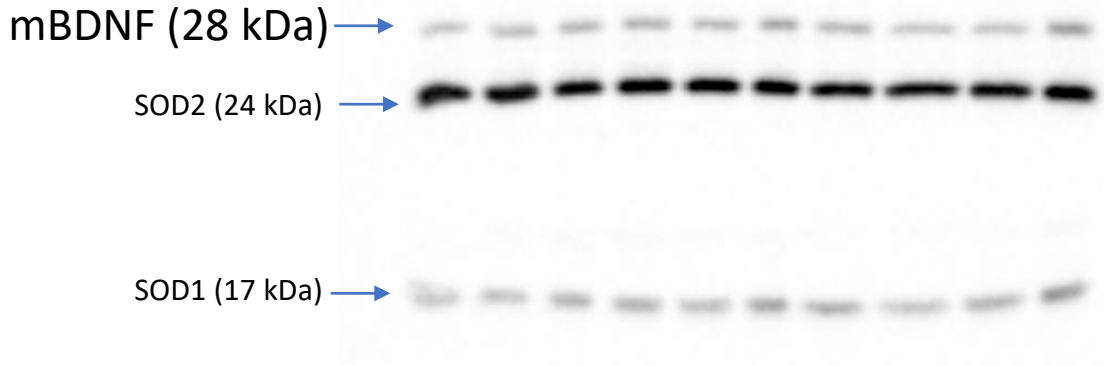


Supplementary Figure S1

MALES - Acute effect

Blot 2 for SOD1, SOD2, BDNF

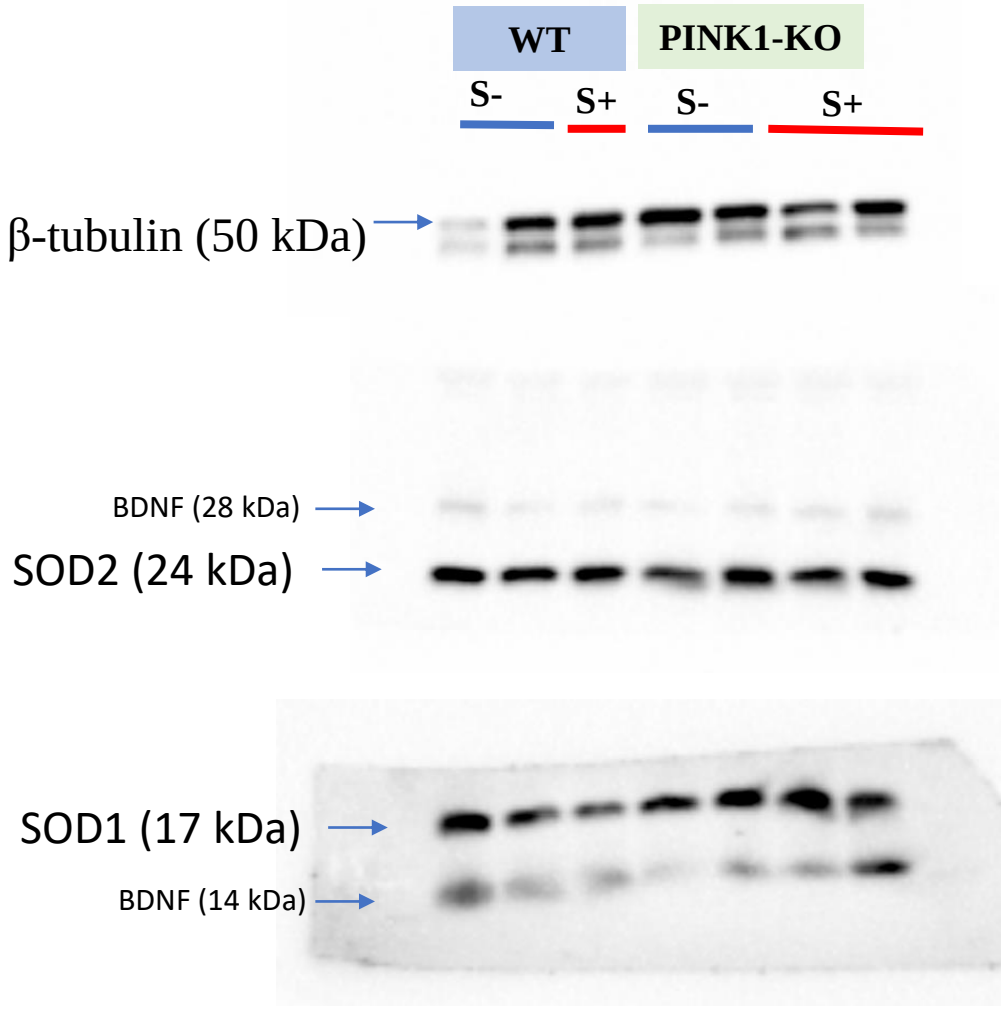


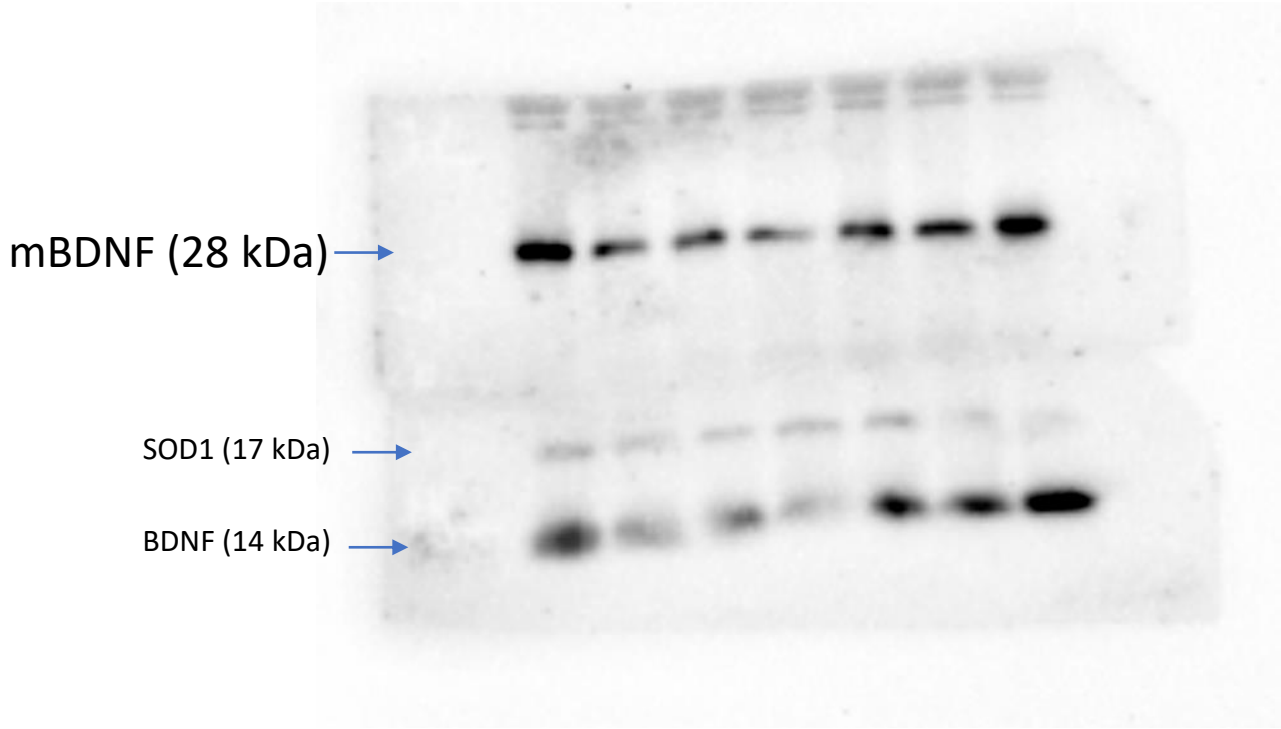


Supplementary Figure S1

MALES - Acute effect

Blot 2 for SOD1, SOD2, BDNF

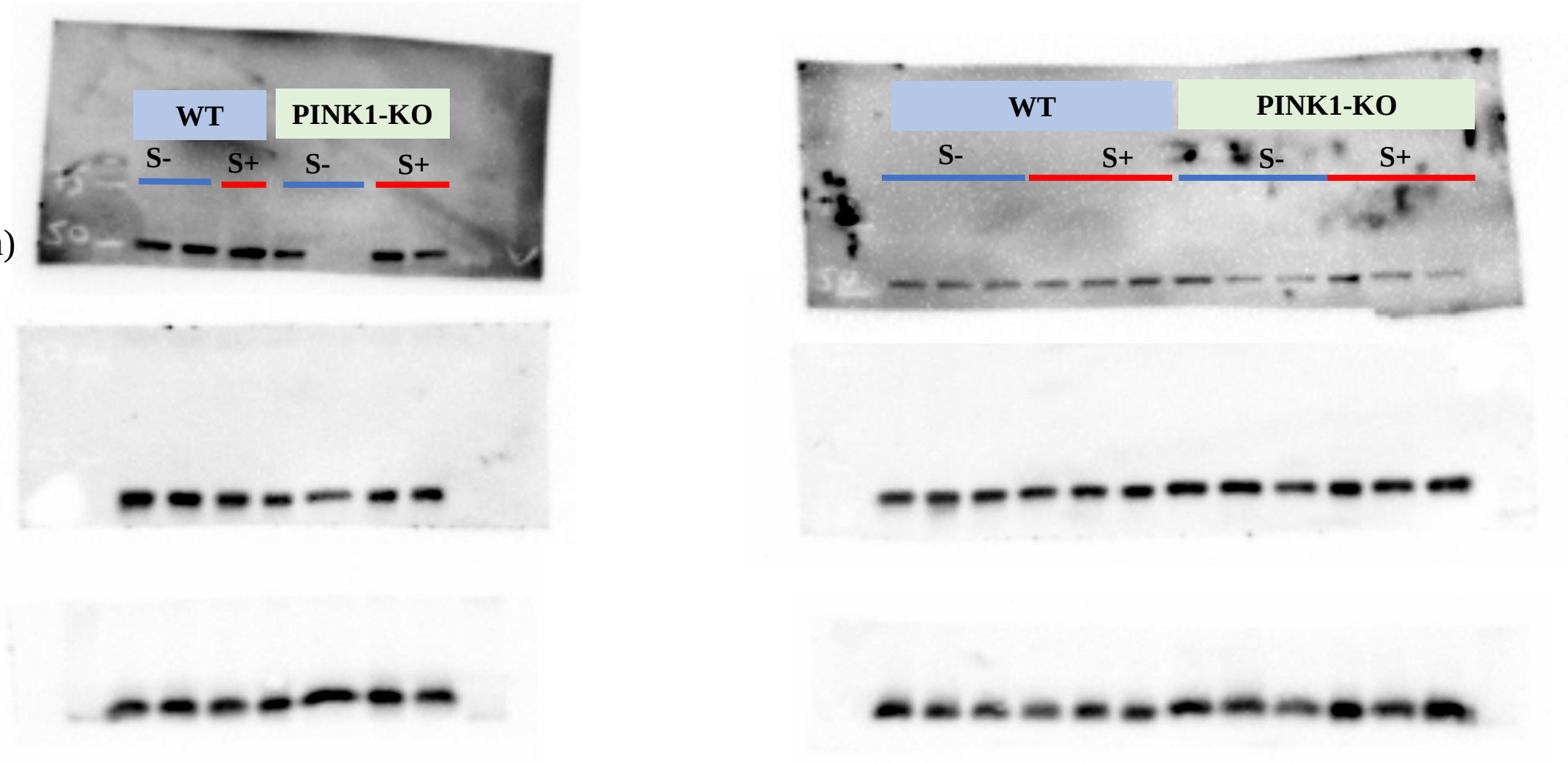




Supplementary Figure S1

MALES - Long-term effect

Blot 1 for DJ1 and TOM20

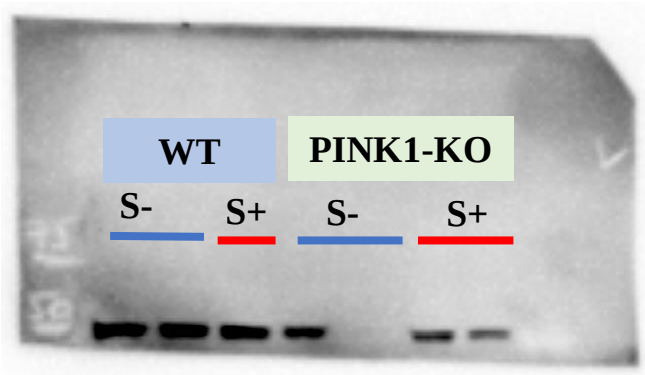


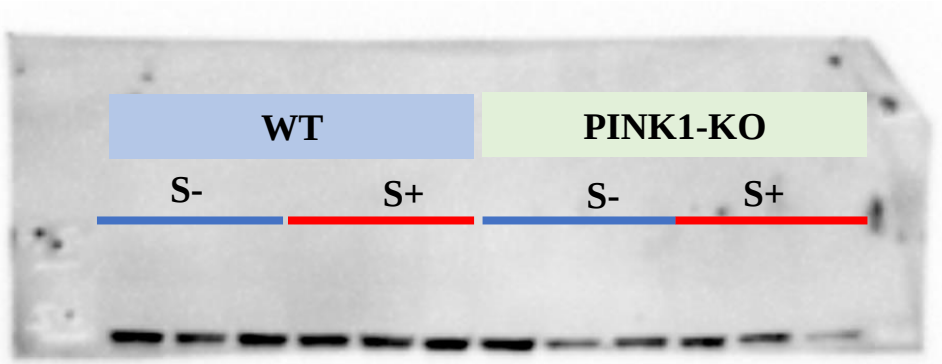
Supplementary Figure S1

MALES - Long-term effect

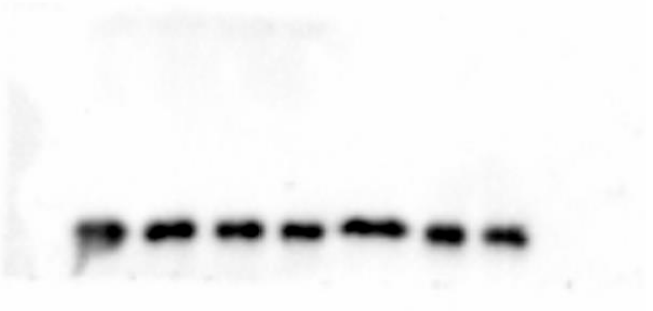
Blot 2 for DJ1 and TOM20

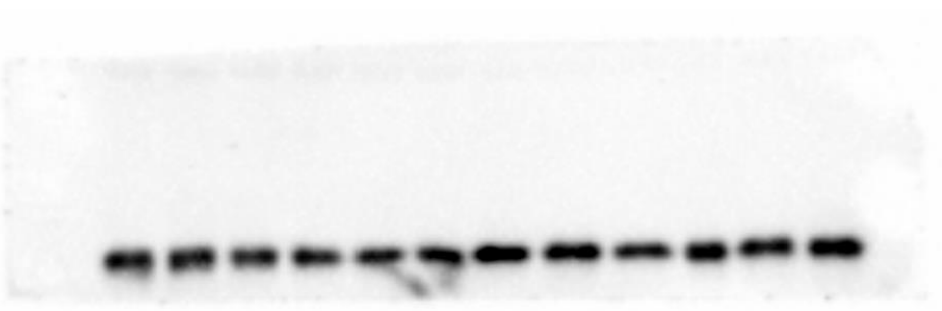
β-tubulin (50 kDa)



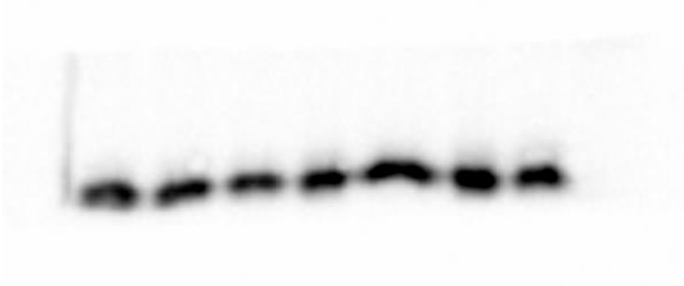


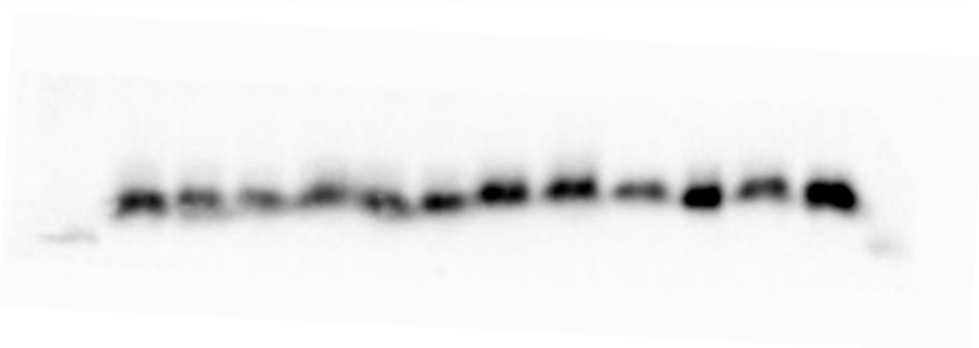
DJ1 (23 kDa)





TOM20 (17 kDa)

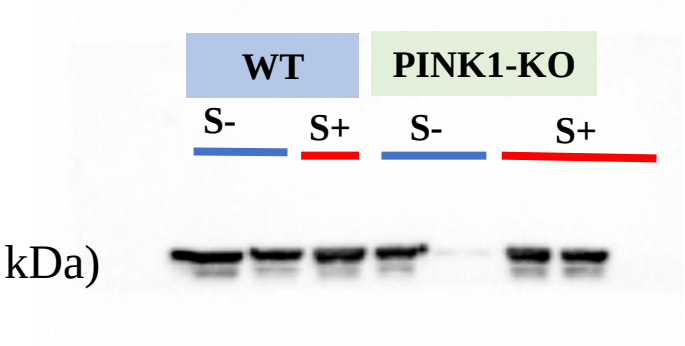




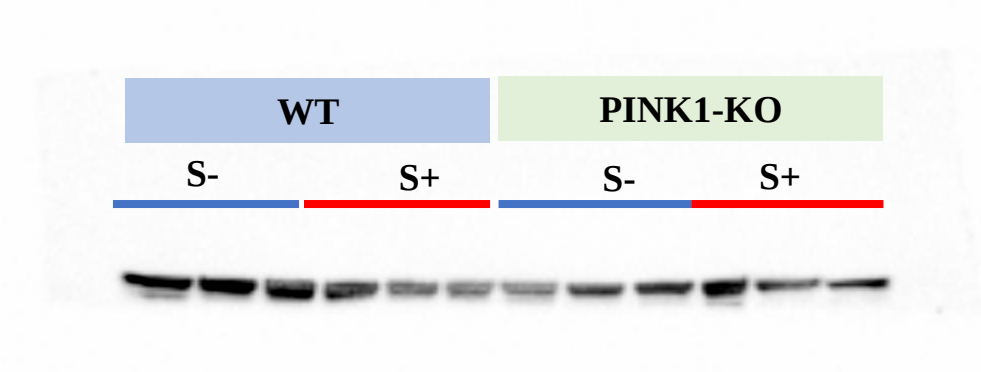
Supplementary Figure S1

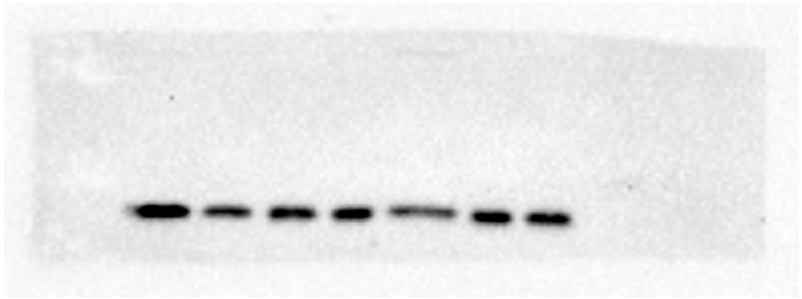
MALES - Long-term effect

Blot 1 for SOD1 and SOD2

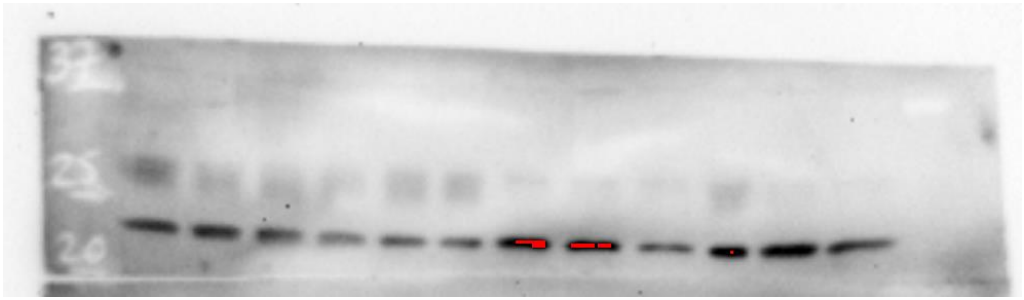


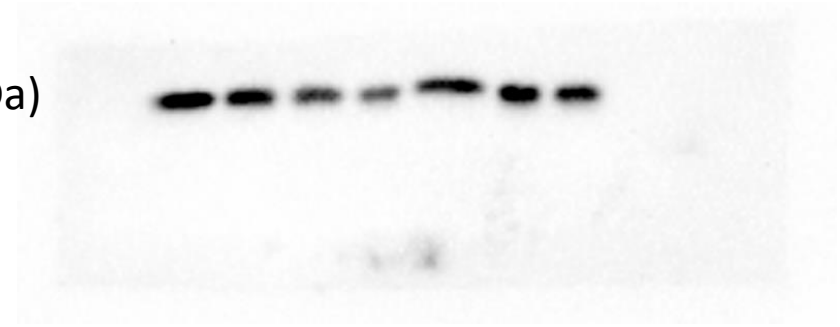
β-tubulin (50 kDa)



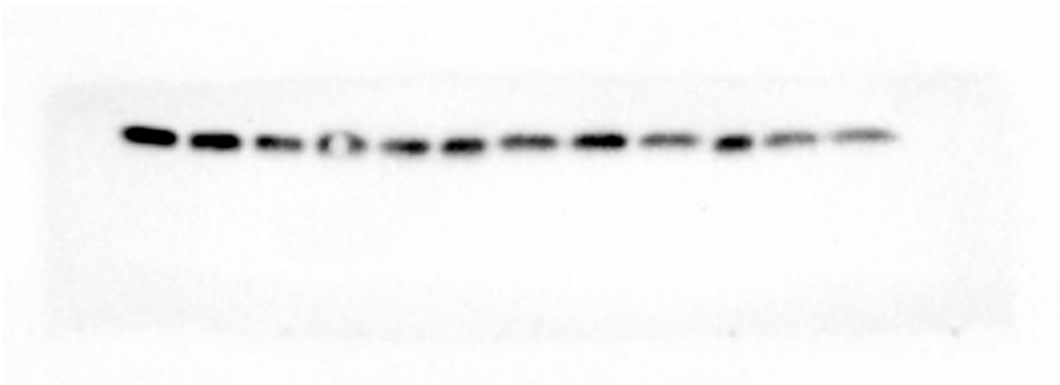


SOD2 (24 kDa)





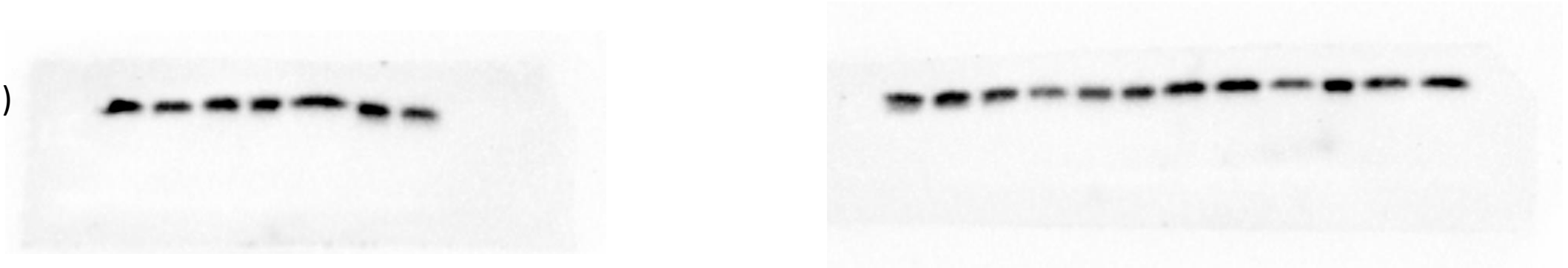
SOD1 (17 kDa)



Supplementary Figure S1

MALES - Long-term effect

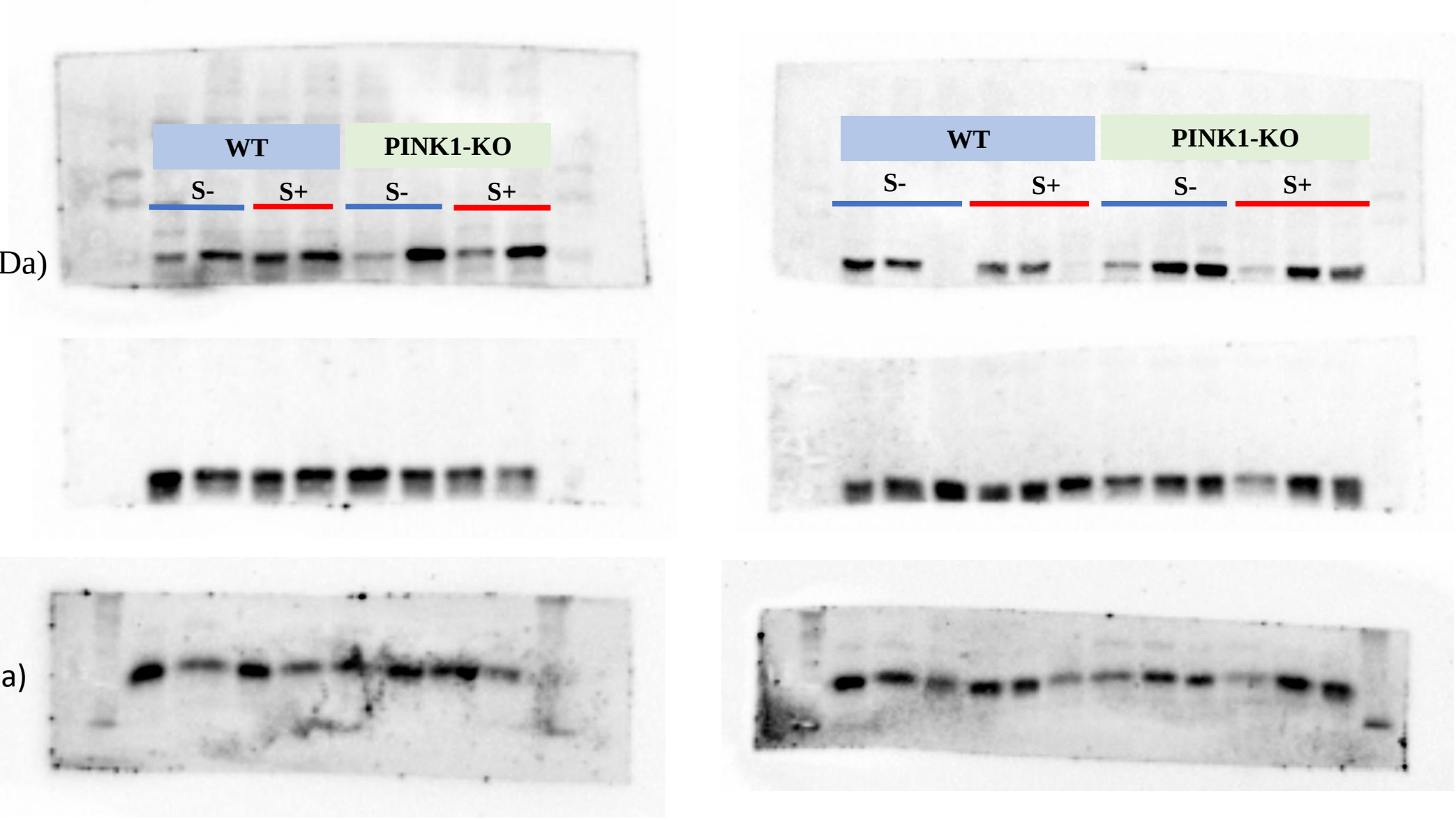
Blot 2 for SOD1 and SOD2



Supplementary Figure S1

FEMALES - Acute effect

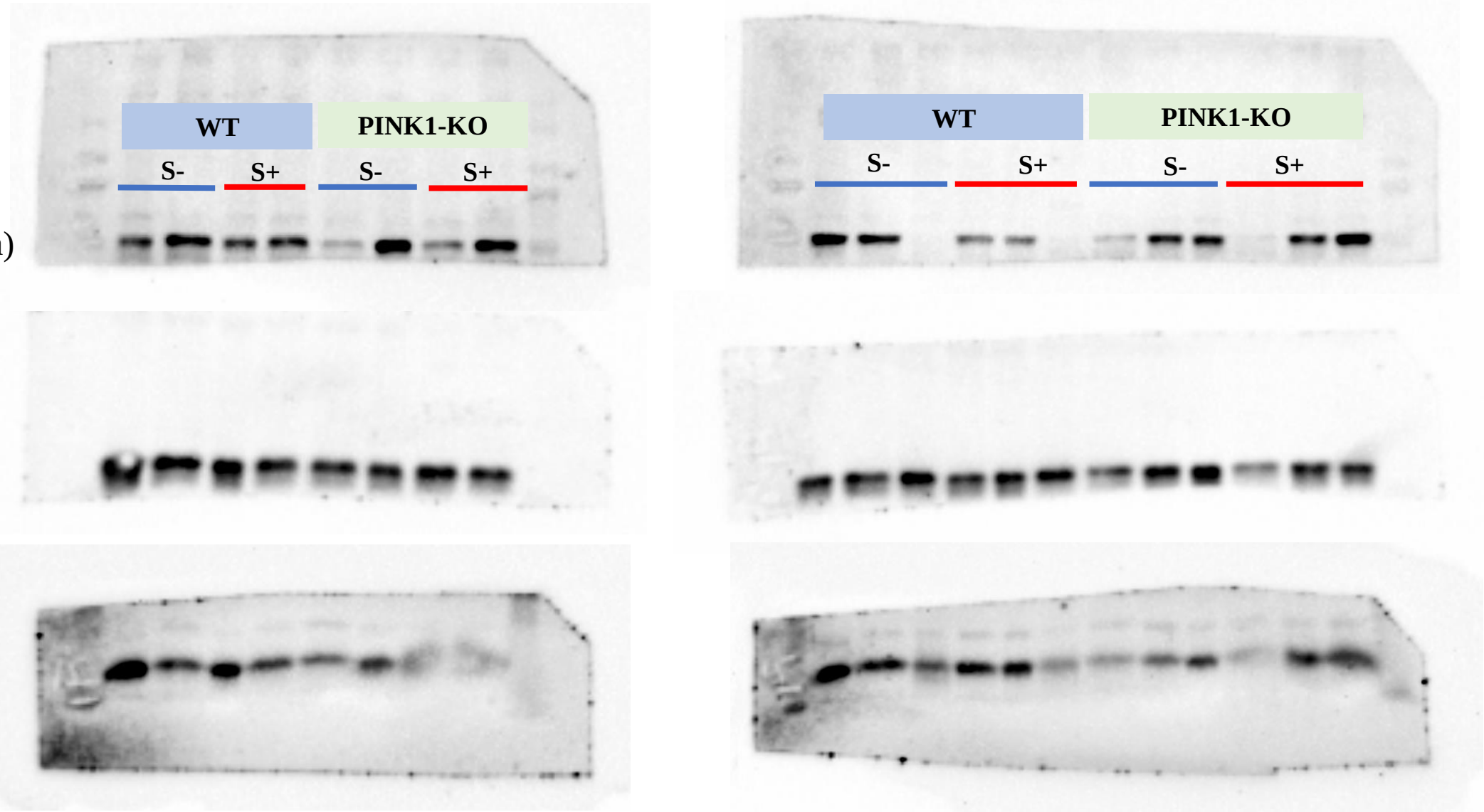
Blot 1 _ DJ1 and TOM20



Supplementary Figure S1

FEMALES - Acute effect

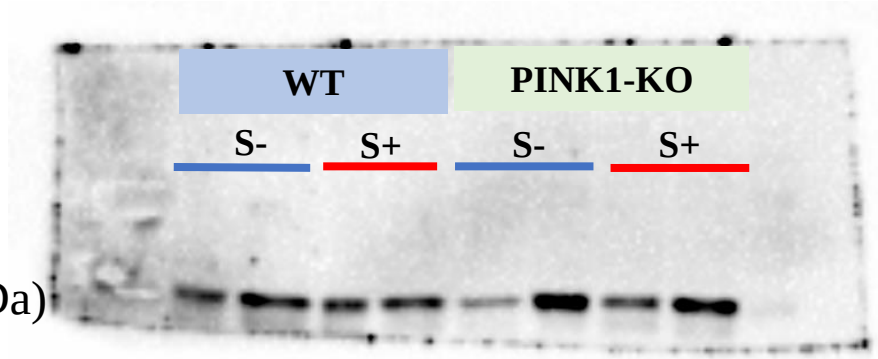
Blot 2 for DJ1 and TOM20



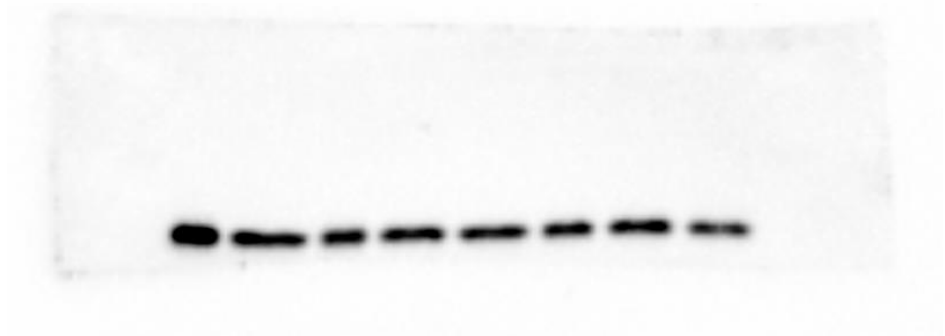
Supplementary Figure S1

FEMALES - Acute effect

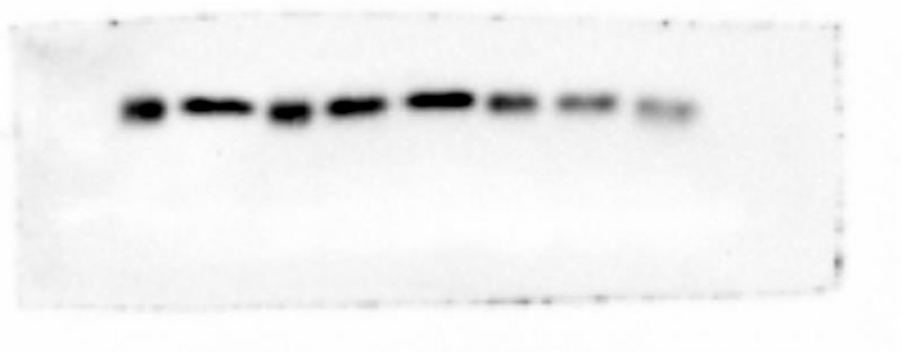
Blot 1 for SOD1, SOD2 and BDNF



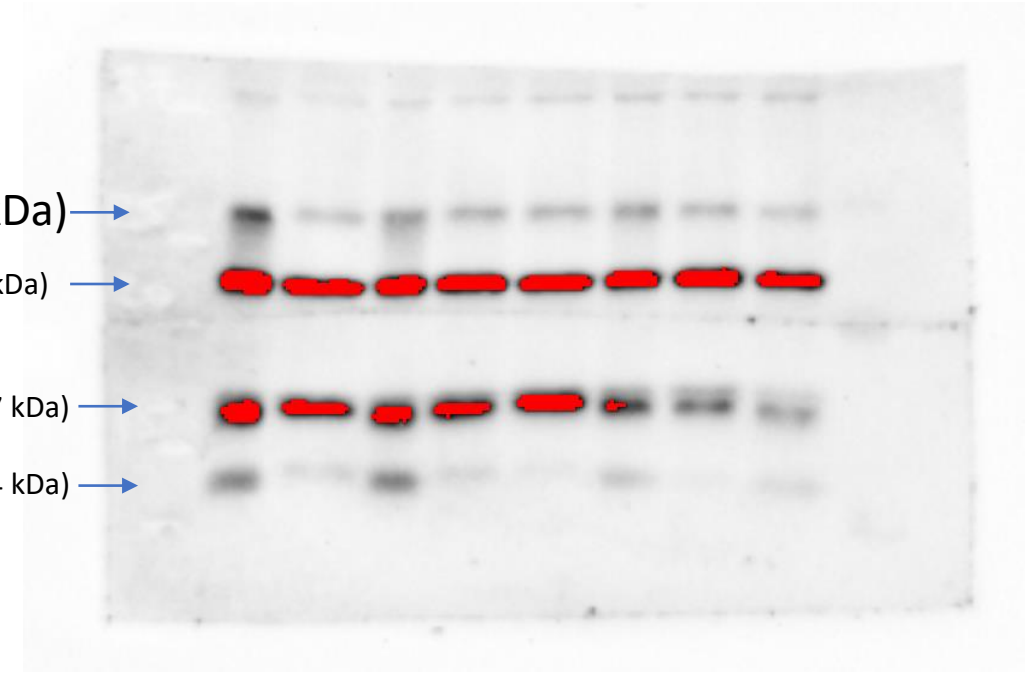
β-tubulin (50 kDa)



SOD2 (24 kDa)



SOD1 (17 kDa)



mBDNF (28 kDa)

SOD1 (24 kDa)

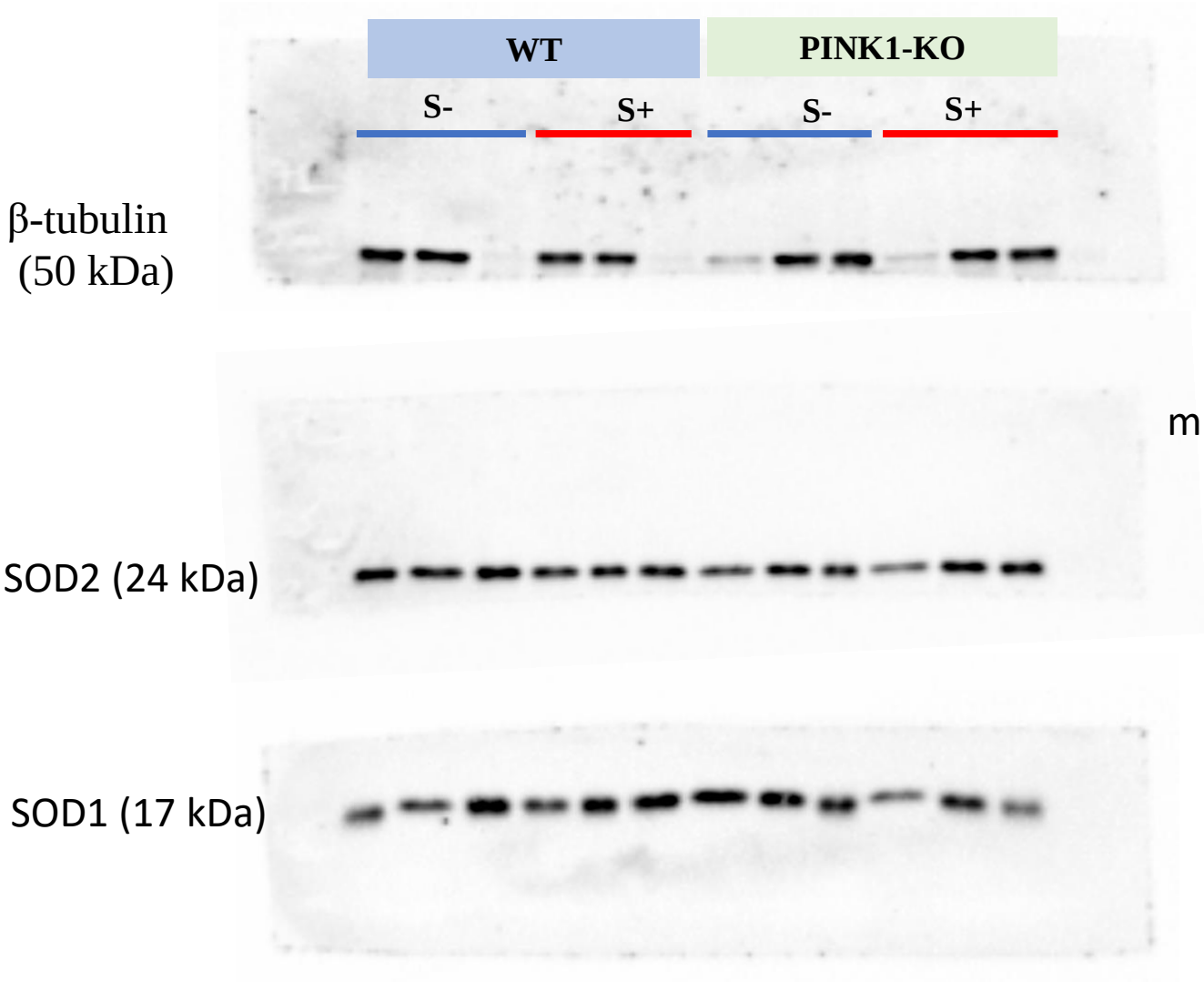
SOD1 (17 kDa)

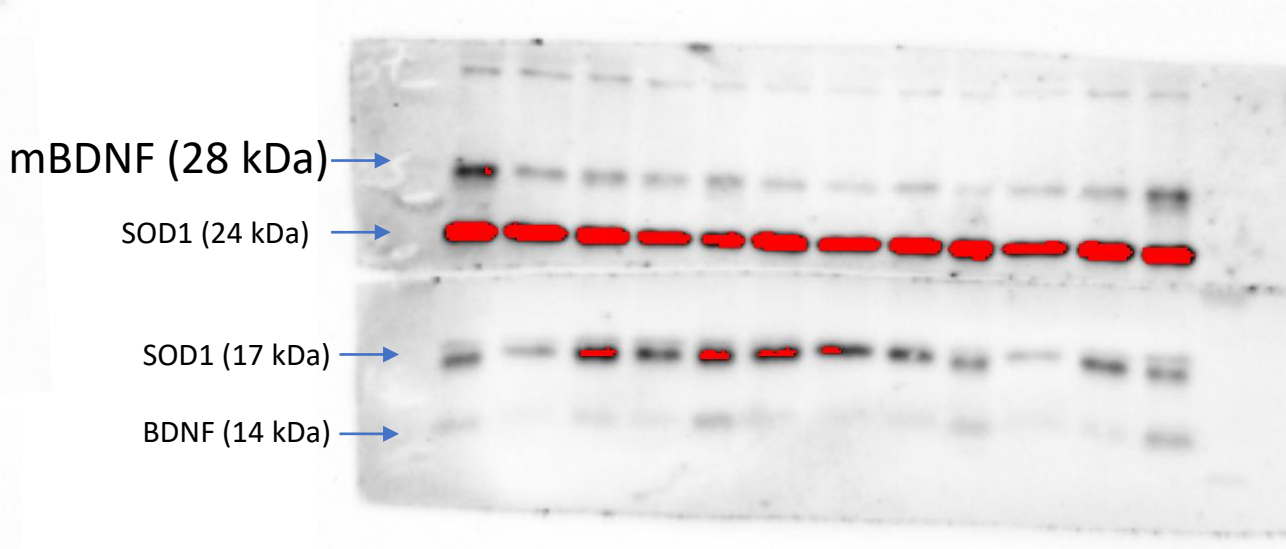
BDNF (14 kDa)

Supplementary Figure S1

FEMALES - Acute effect

Blot 1 for SOD1, SOD2 and BDNF

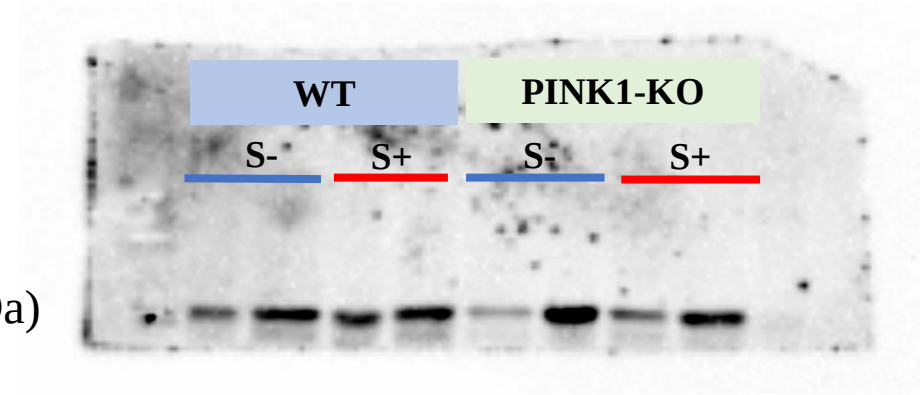




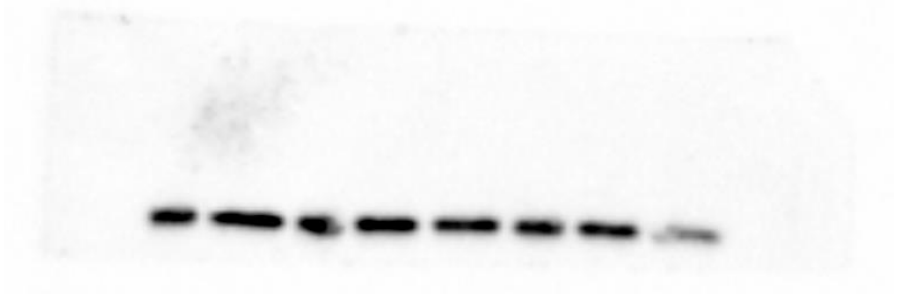
Supplementary Figure S1

FEMALES - Acute effect

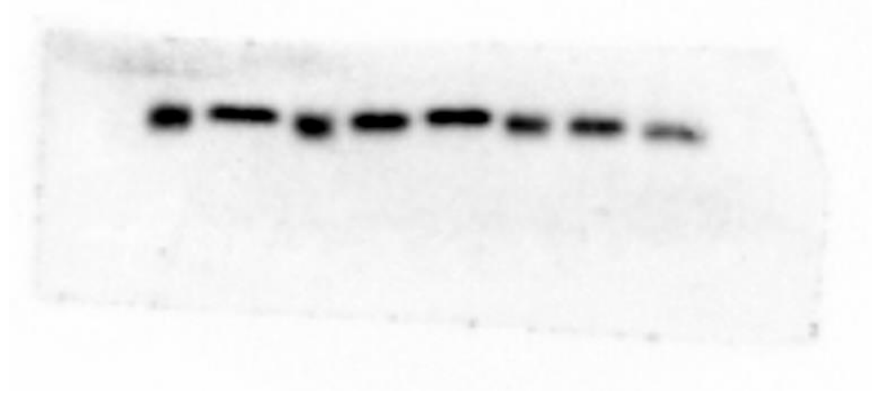
Blot 2 for SOD1, SOD2 and BDNF



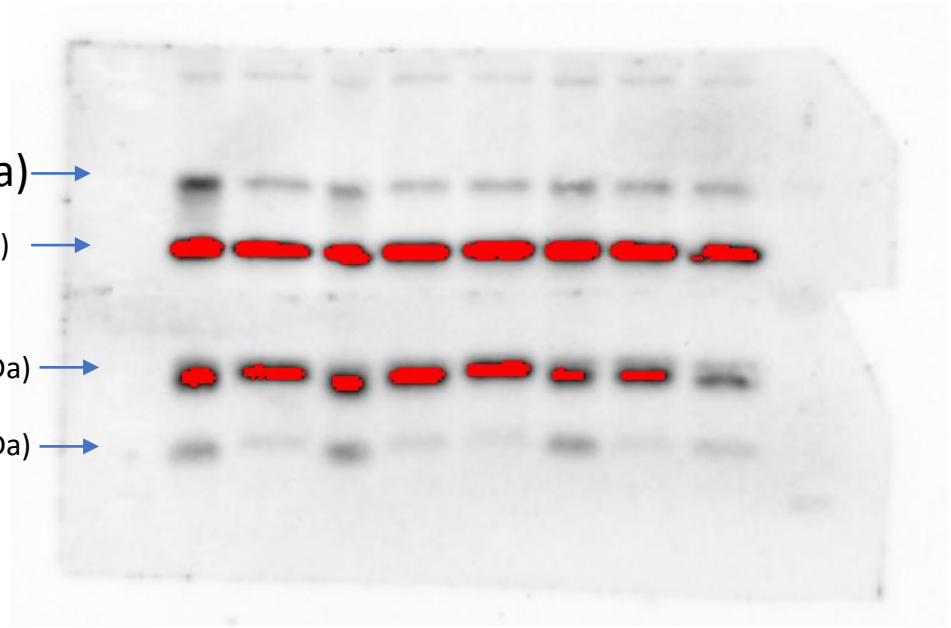
β-tubulin (50 kDa)



SOD2 (24 kDa)



SOD1 (17 kDa)



mBDNF (28 kDa)

SOD1 (24 kDa)

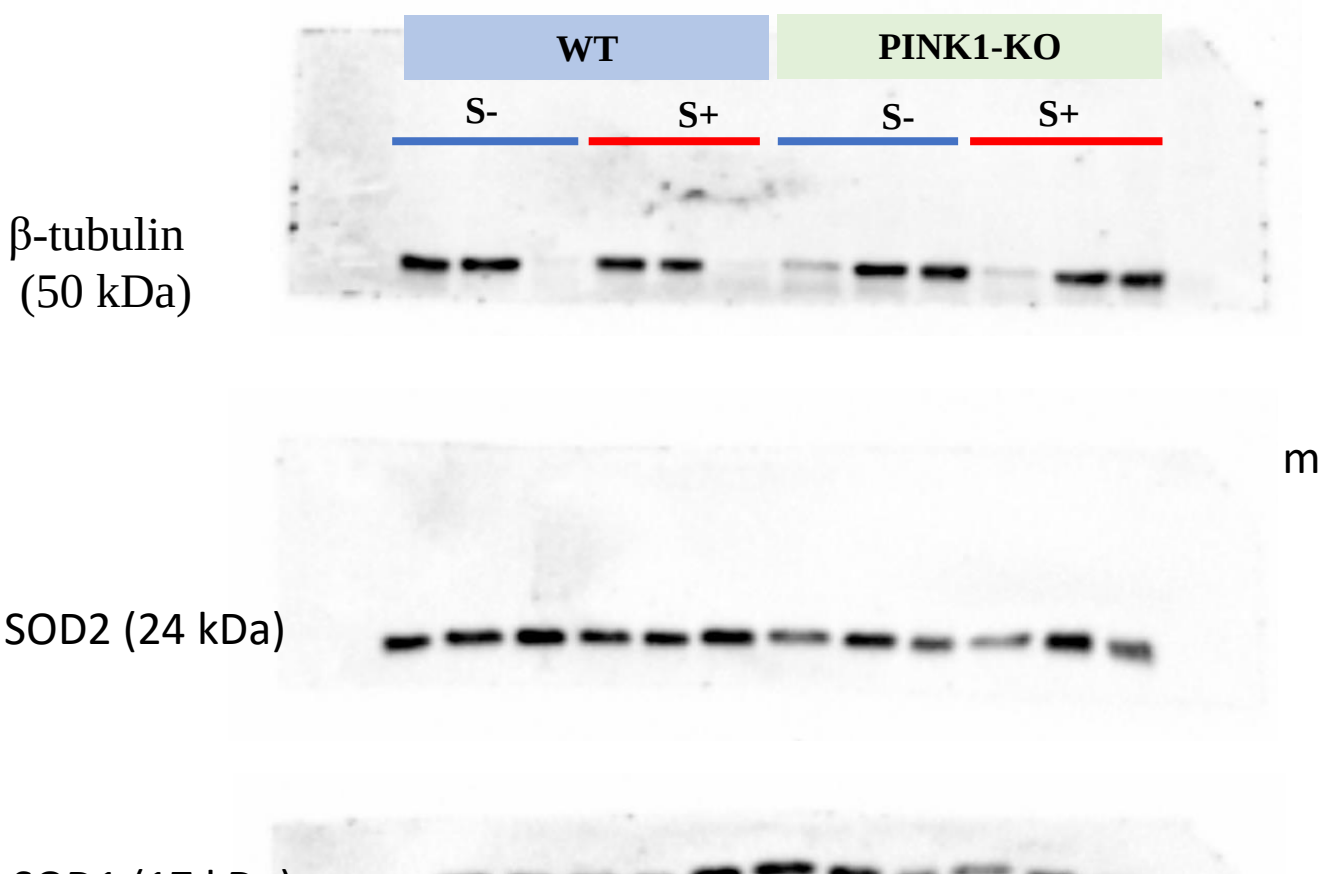
SOD1 (17 kDa)

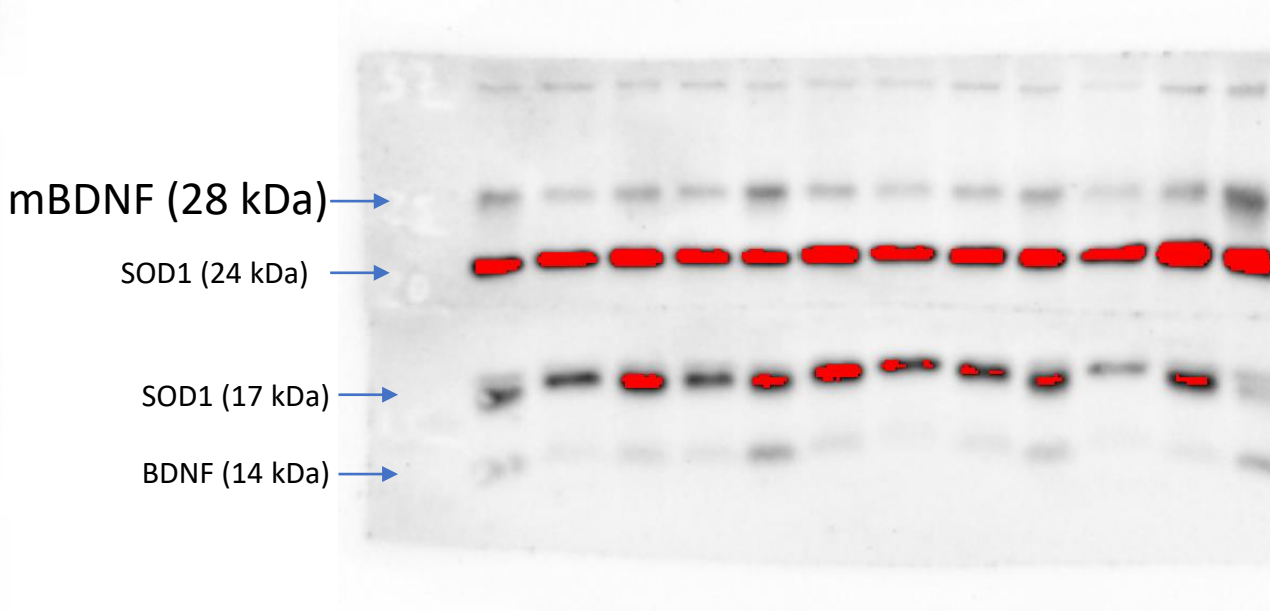
BDNF (14 kDa)

Supplementary Figure S1

FEMALES - Acute effect

Blot 2 for SOD1, SOD2 and BDNF





Supplementary Figure S2. OCRs parameters normalized to total protein content of PBMCs from stressed and unstressed PINK1-KO and WT rats. For the assay it was used: 1 µM Oligomycin, 1.5 µM FCCP, 1 µM Antimycin, 100 nM Rotenone. For control groups (S-) n = 14 per group, for stressed groups sacrificed in day 3 the n = 10 per group, and in day 10 the n = 4 per group. Data was normalized to total protein content and expressed as percentage mean ± SEM; *p ≤ 0.05,**p ≤ 0.01, ***p ≤ 0.001, ****p ≤ 0.0001, unpaired t-test.