

Supplementary Table S1. Nucleotide sequences of specific primers for qPCR

Target genes	GenBank No.	Sequences (5' to 3')
Atp7b	NC_000074.7	F: GGGGACGATGCCTGAACAG R: TAGCCAACATTGTCTGAAGGCG
Atox1	NC_000077.7	F: CTGTTTGTGAGGGTTGCCA R: GGGAGGAGTGGAGTTCAACA
Ccs	NC_000085.7	F: CTCGCTCCTCCCAGATAGTG R: CAGCCTGGTTATCGATGAGGG
Cox	NC_000067.7	F: GAAGAAGCCACTGAAGCCCT R: CCTCATGCACTCCTTGTTGGG
Steap2	NC_000071.7	F: ACCGCTTTTACACACCACCA R: TCCTCCCATGCCTTCGTCTA
Sod1	NC_000082.7	F: CCACTTCGAGCAGAAGGCAA R: AGTCACATTGCCAGGTCTC
Dmt1	NC_000081.7	F: TCACCATCGCAGACACTTTTG R: GACAGGACGGCACGAACAT
Atp7a	NC_000086.8	F: CTCGCAAACAGCACAGGGA R: GTGGCTCTTTCATGTCTGCTG
Dcytb	NC_000068.8	F: CTGTCGGTGATCTTCGTGCT R: GATGAAGACGAAGCCGGTCA
Ctrl	NC_000070.7	F: TGCCGATGGTTTGGTGTTTG R: AACCATATCAAAGGCTCTGTGG
Mt	NC_000074.7	F: TCCTGCAAGAAGAGCTGCTG R: CTGTTTCGTCACATCAGGCAC
Cp	NC_000069.7	F: CATCGTGAGGTGCCCTACAG R: CATCGTGAGGTGCCCTACAG
Tubulin- $\beta$	NC_000074.7	F: CCCATCTACGAGGGCTAT R: TGTCACGCACGATTTC

Supplementary Table S2. Details of antibodies used in the experiment

Antibodies	Source	Catalogue no.	Dilution ratio
Primary antibody			
CTR1	Novus	NB100-402SS	1:200(IF)
CTR1	Affinity	DF13356	1:1000
ATP7A	Affinity	DF8506	1:1000
DMT1	Abcam	ab55735	1:1000
CP	Proteintech	21131-1-AP	1:1000
DCYTB	Proteintech	26735-1-AP	1:1000
ATP7B	Proteintech	19786-1-AP	1:1000
GR	Proteintech	24050-1-AP	1:200~1000
p-GR (Ser211)	Cell Signaling Technology	4161S	1:1000
HEPH	Proteintech	11148-1-AP	1:1000
MT	Affinity	DF6755	1:100
GAPDH	Bioworld	MB001H	1:10000
$\beta$ -actin	Bioworld	bs6007M	1:10000
Tubulin- $\alpha$	Bioworld	BS1699	1:10000
Secondary antibody			
Goat anti-Mouse IgG (H+L) -HRP	Bioworld	BS12478	1:10000
Goat anti-Rabbit IgG (H+L)-HRP	Bioworld	BS13278	1:10000
Rabbit Anti-Goat IgG (H+L)-HRP	Bioworld	BS30503	1:10000
Goat Anti-Rabbit IgG H&L(Alexa Fluor® 488)	Abcam	ab150077	1:1000

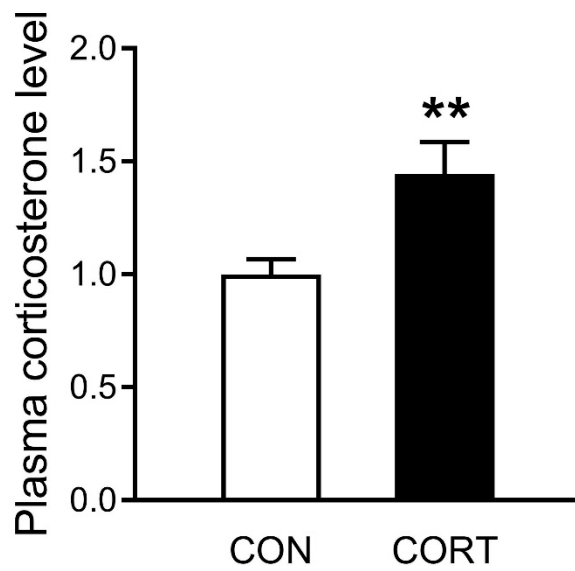
Supplementary Table S3. Nucleotide sequences of specific primers for CHIP-PCR

Target genes	GenBank No.	Sequences (5' to 3')
CTR1	NC_000070.7	F: AGGCCCCATACACAGGCATA
		R: GAATGCCTGCACCCACTTAG

## Figure captions

Figure S1. Corticosterone-exposed mice plasma corticosterone levels are up-regulated.

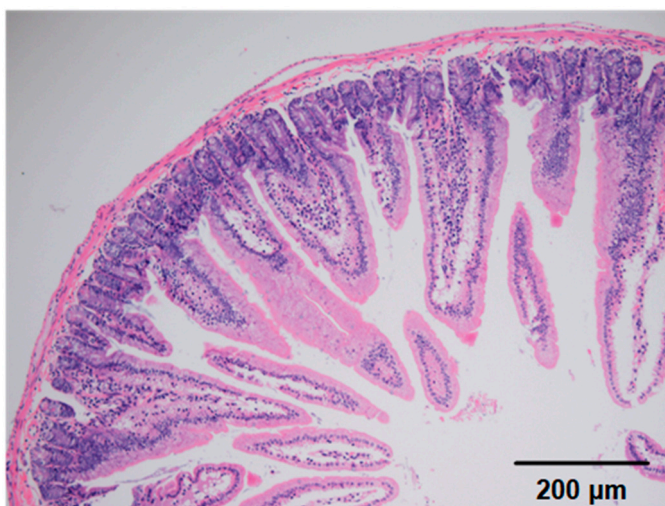
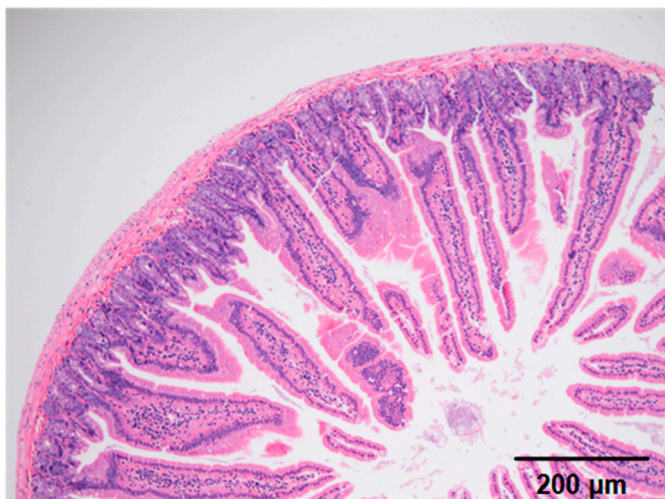
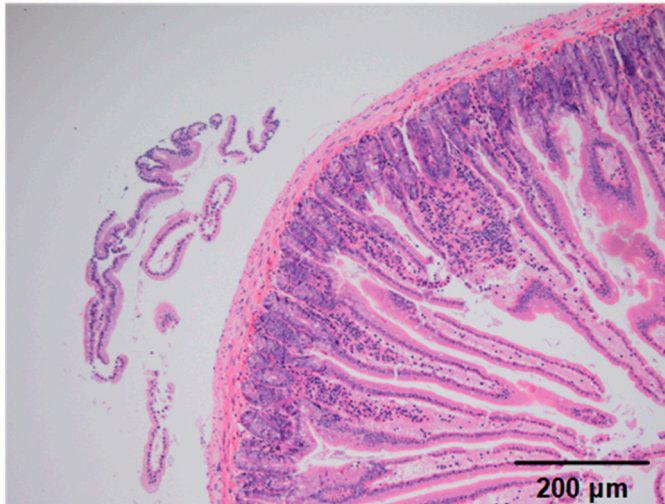
Figure S1





The following supplementary files are the images of full blots in protein analysis and H&E staining. The molecular weight markers have been labeled.

Figure S2A Mouse duodenum H&E staining, the first three are the control group, the last three are the corticosterone group, n=3



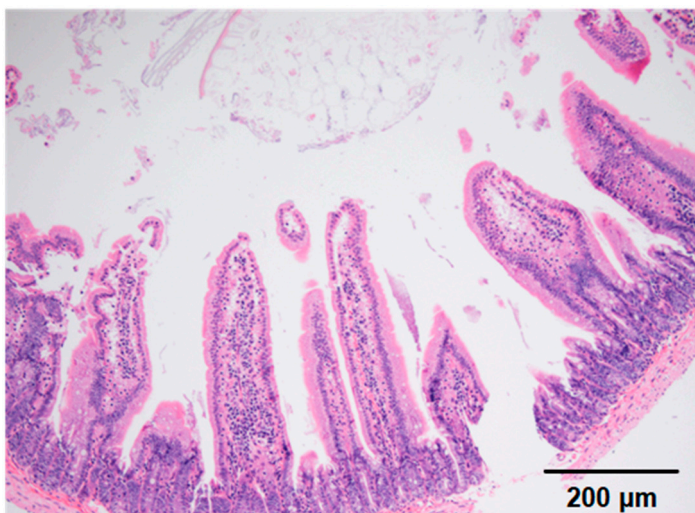
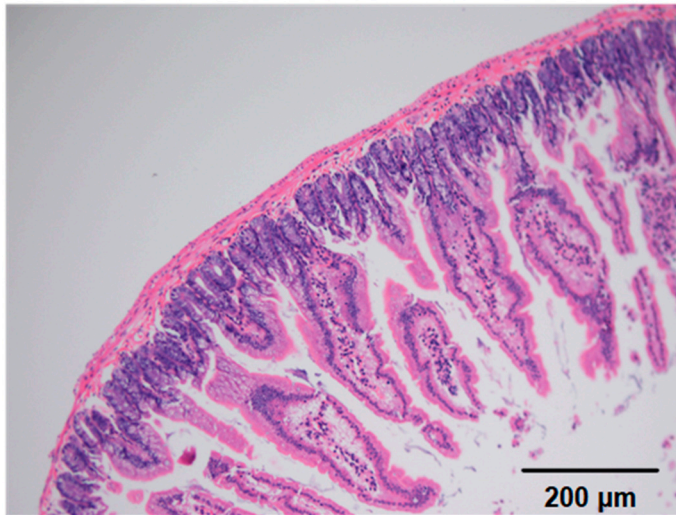
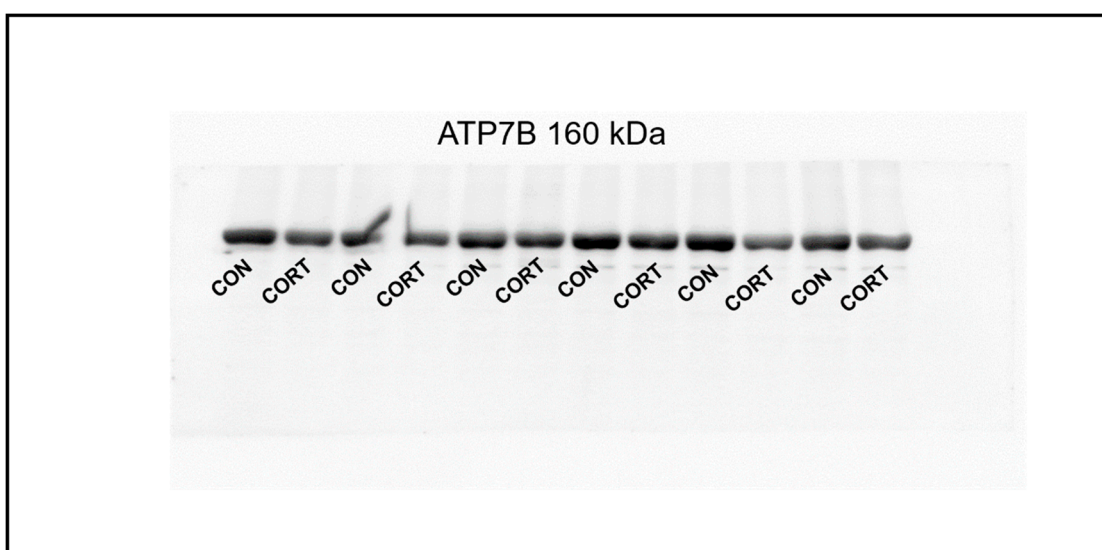
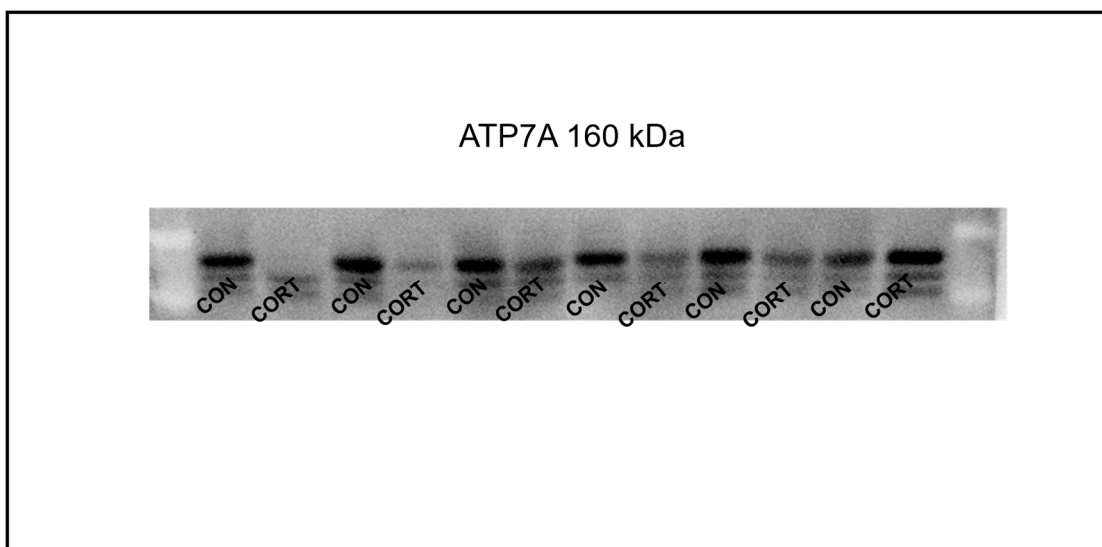
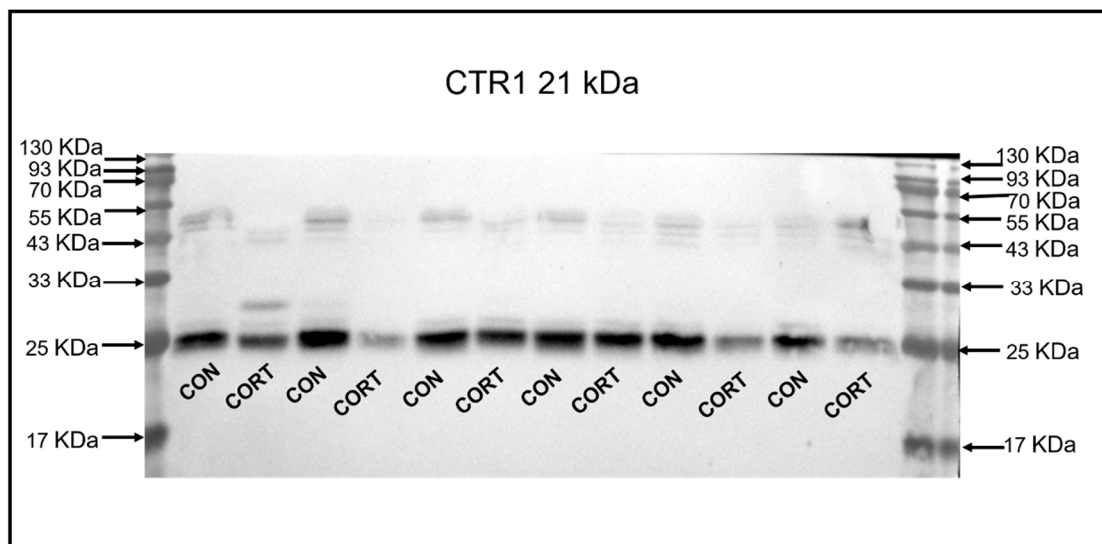
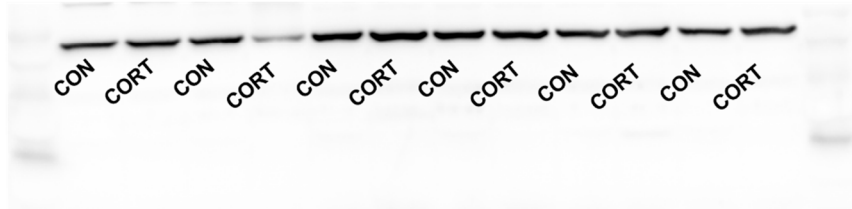


Figure S2F CTR1, ATP7A, ATP7B, CP, DCYTB, HEPH, Tublin- $\alpha$  bands observed in duodenum r of mice

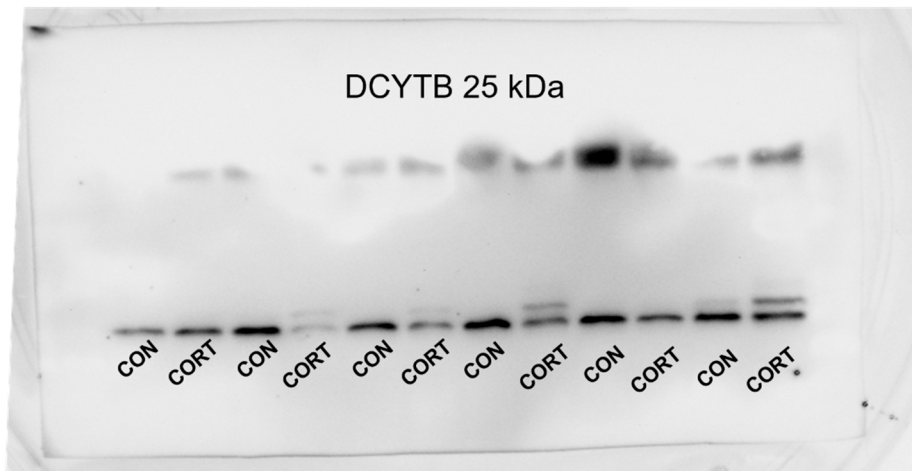




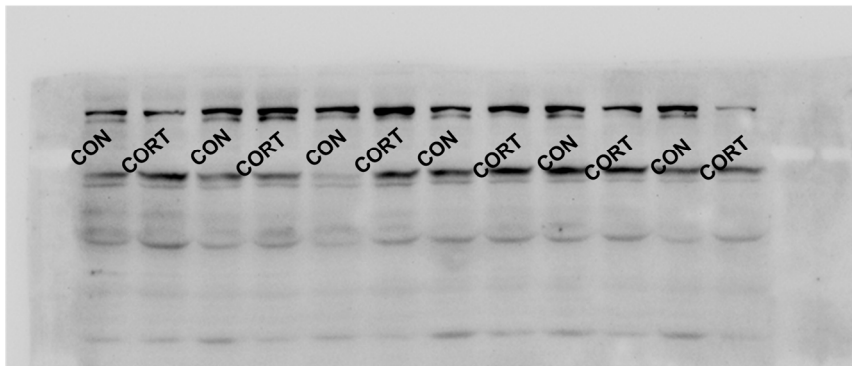
CP 85 kDa



DCYTB 25 kDa



HEPH 130 kDa



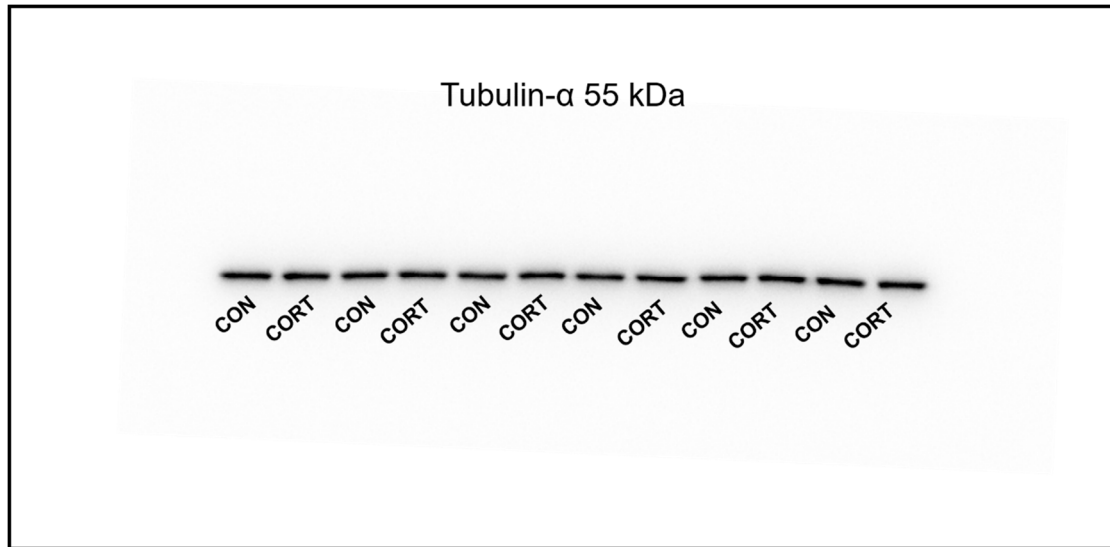
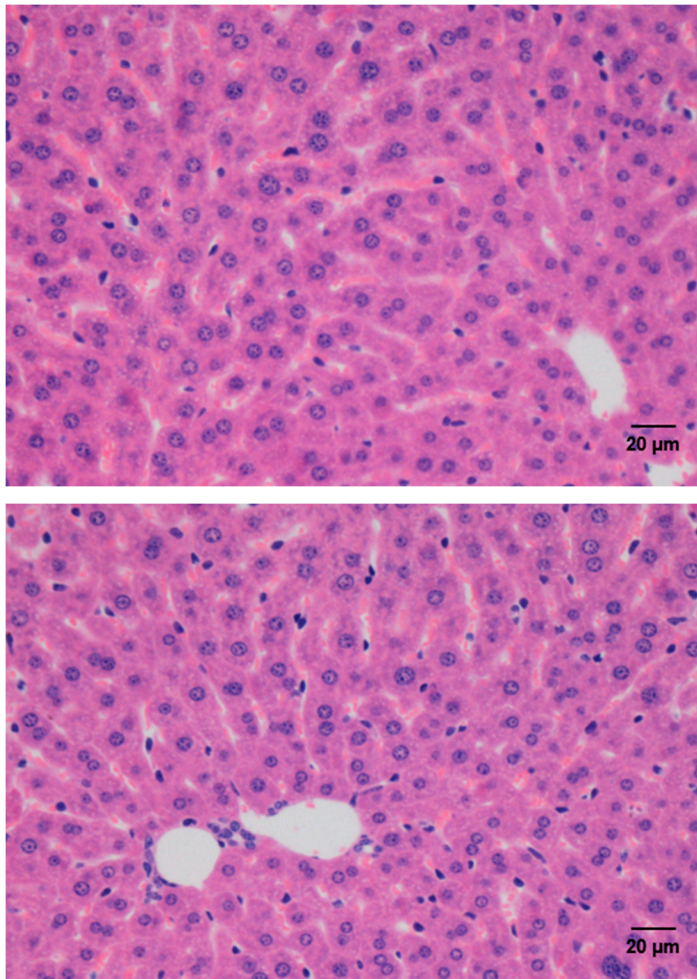
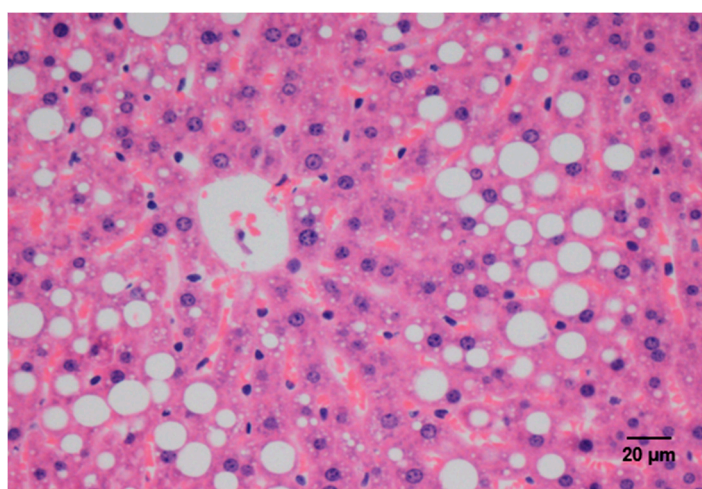
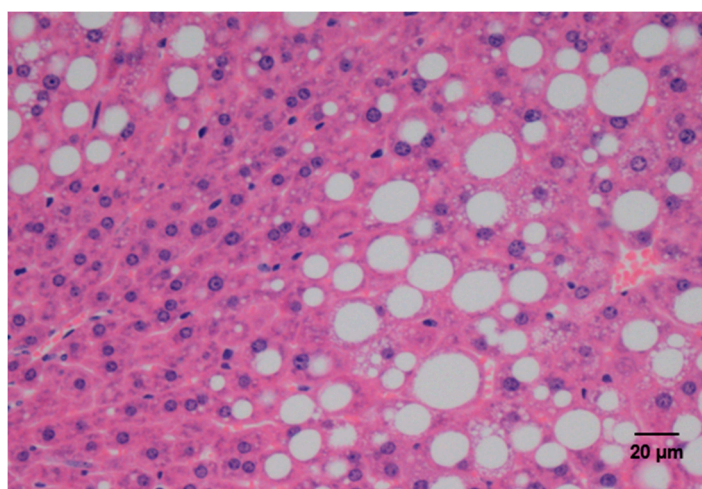
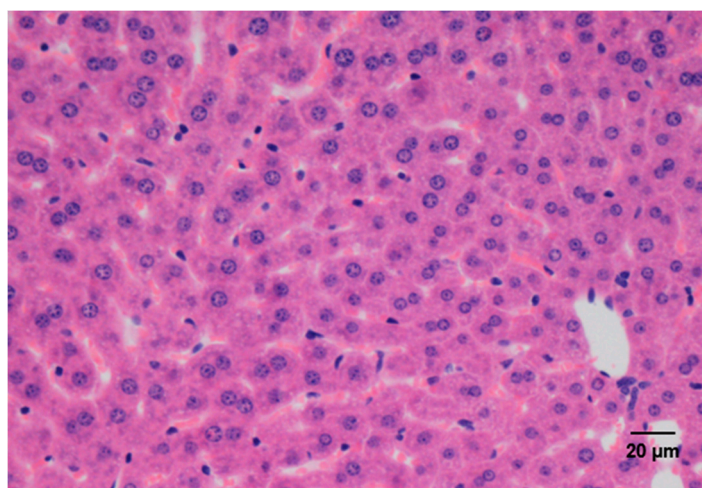


Figure S3A up. Mouse liver H&E staining, the first three pictures are the control, and the last three pictures are the CORT group, n=3







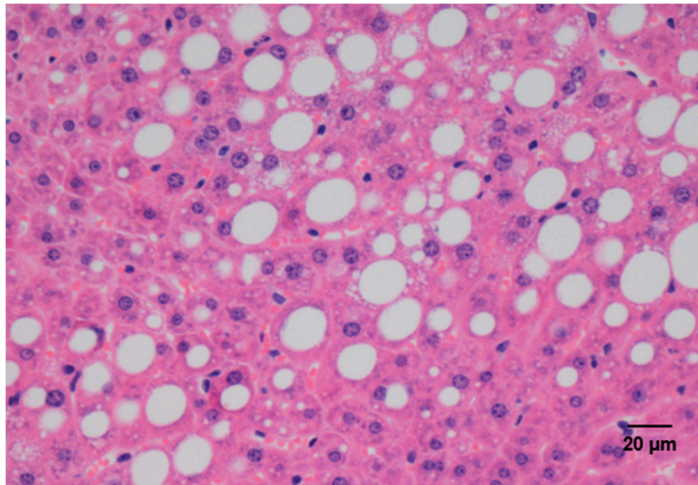
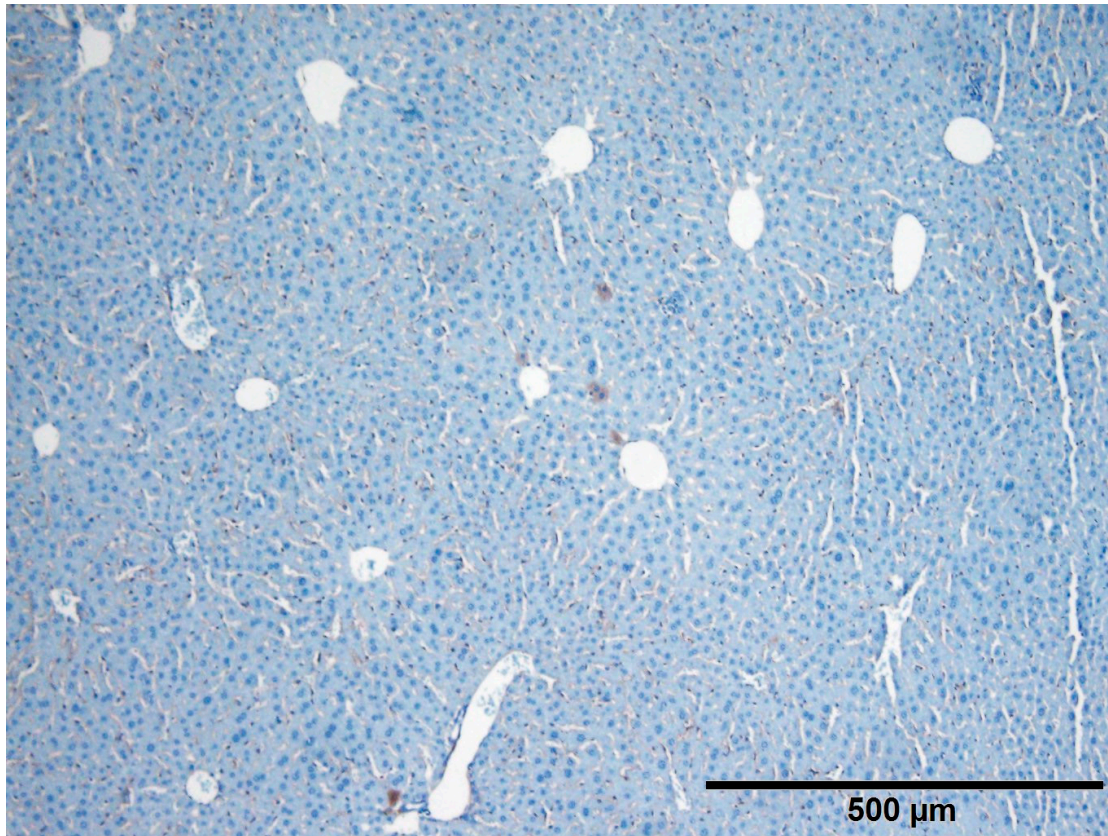
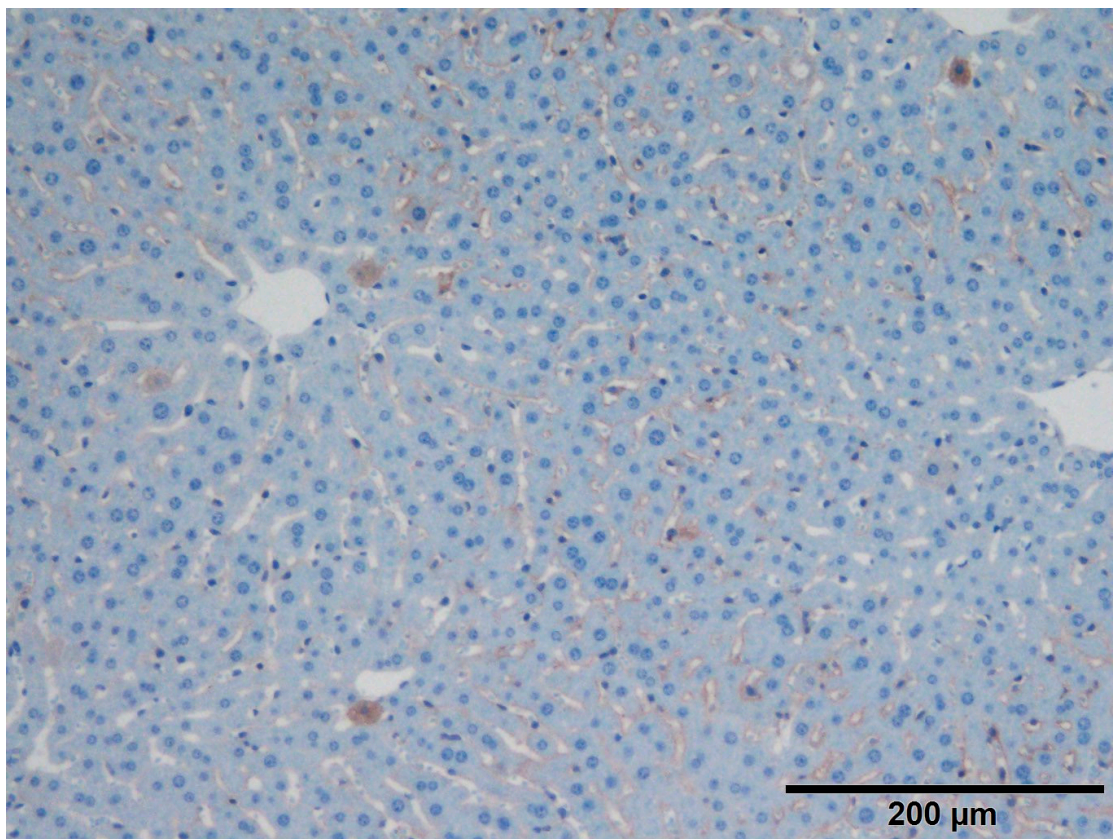
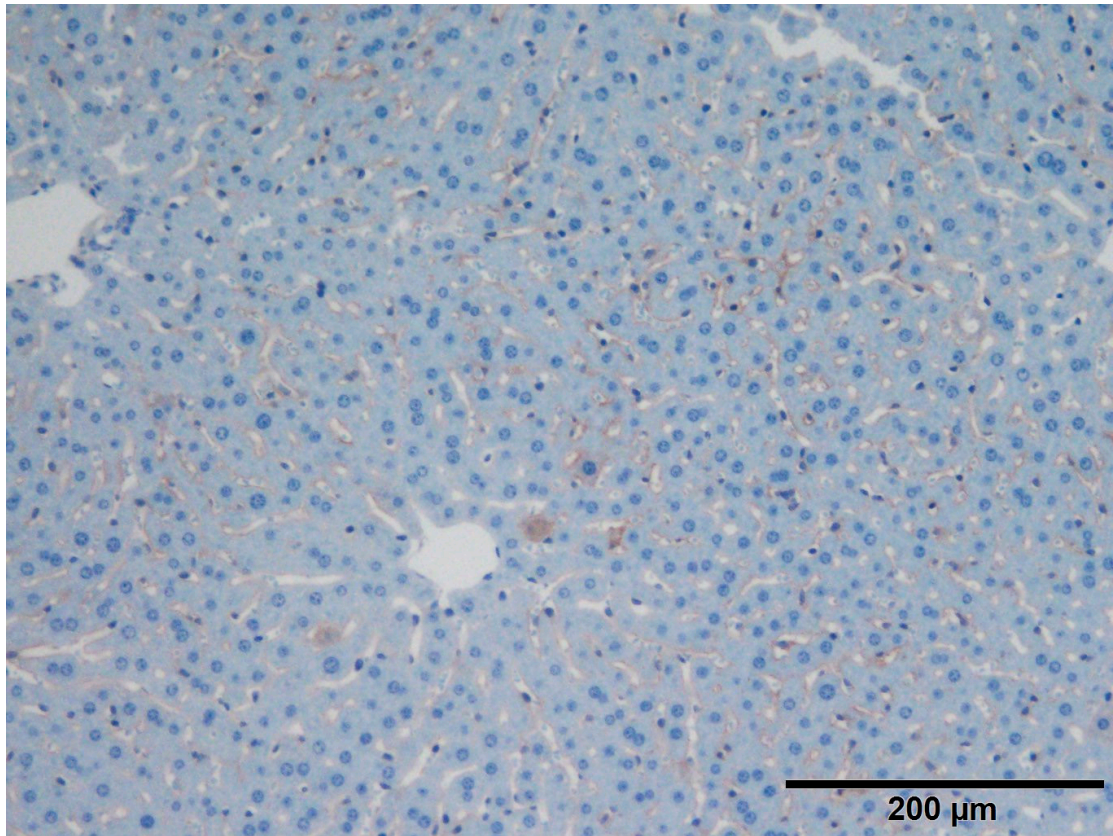


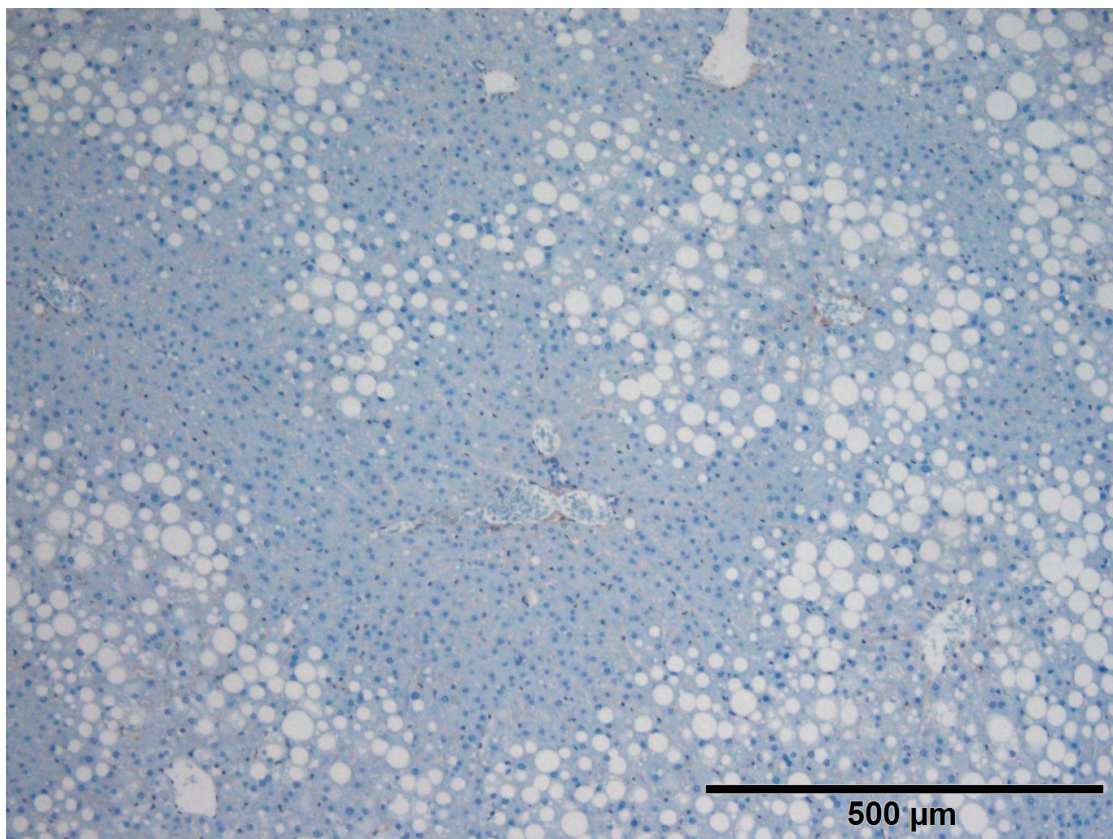
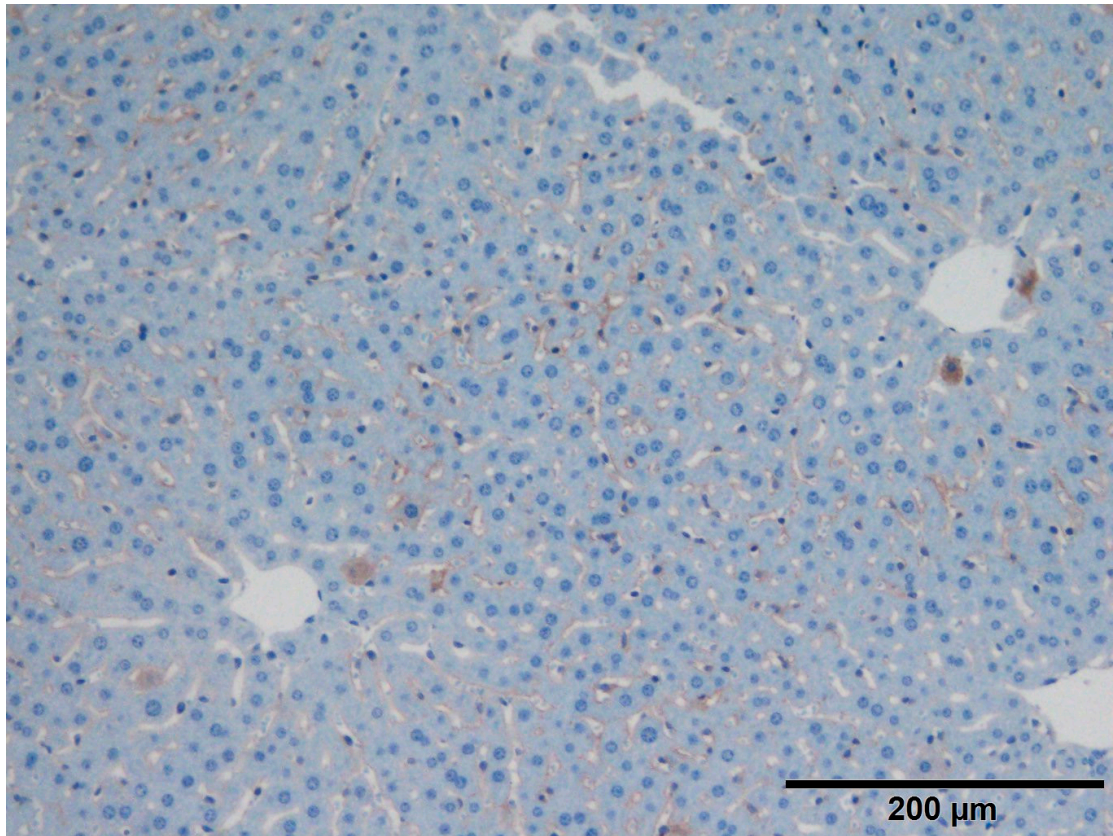
Figure S3A down. Mouse liver metallothionein immunohistochemistry, the first four pictures are the control, and the last four pictures are the CORT group, n=3



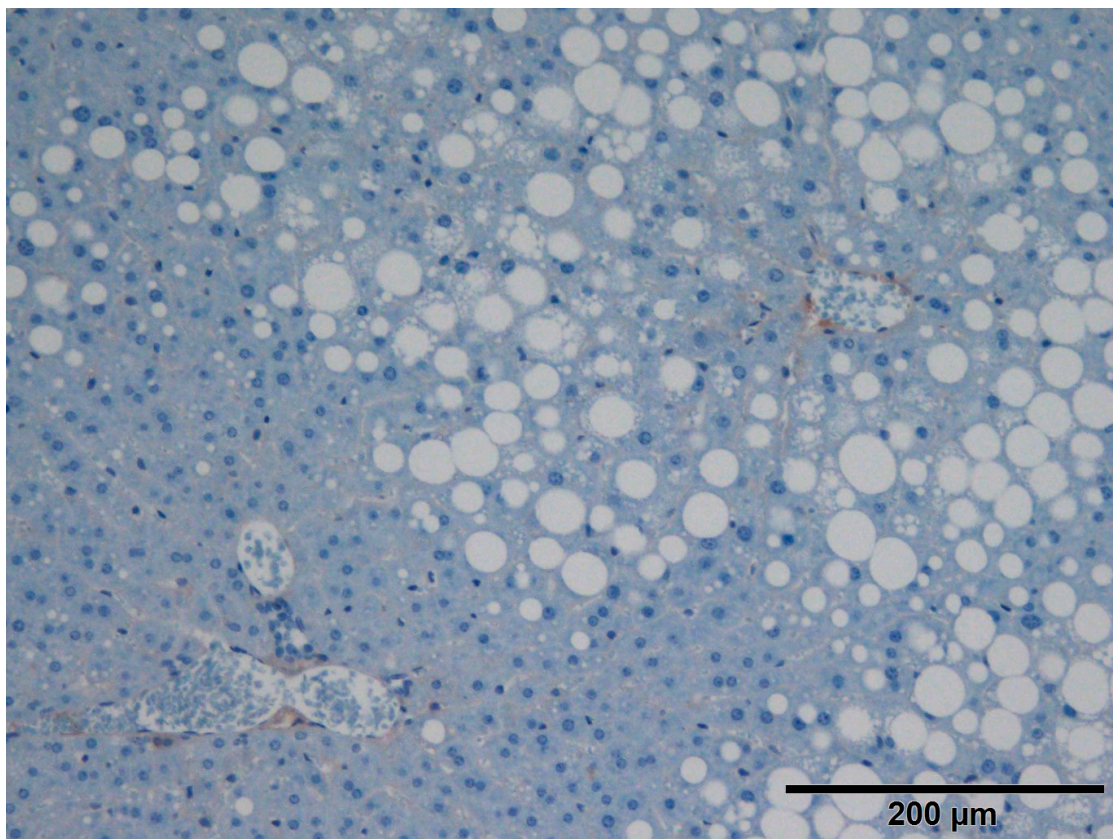
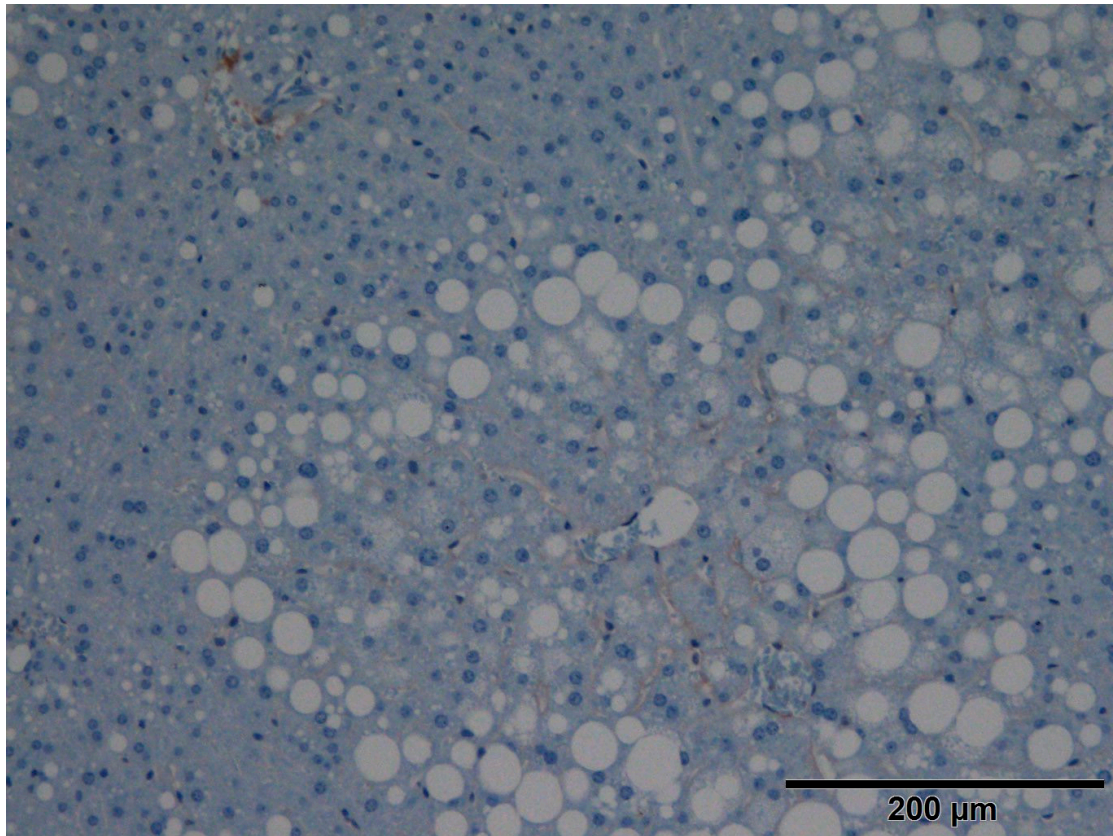














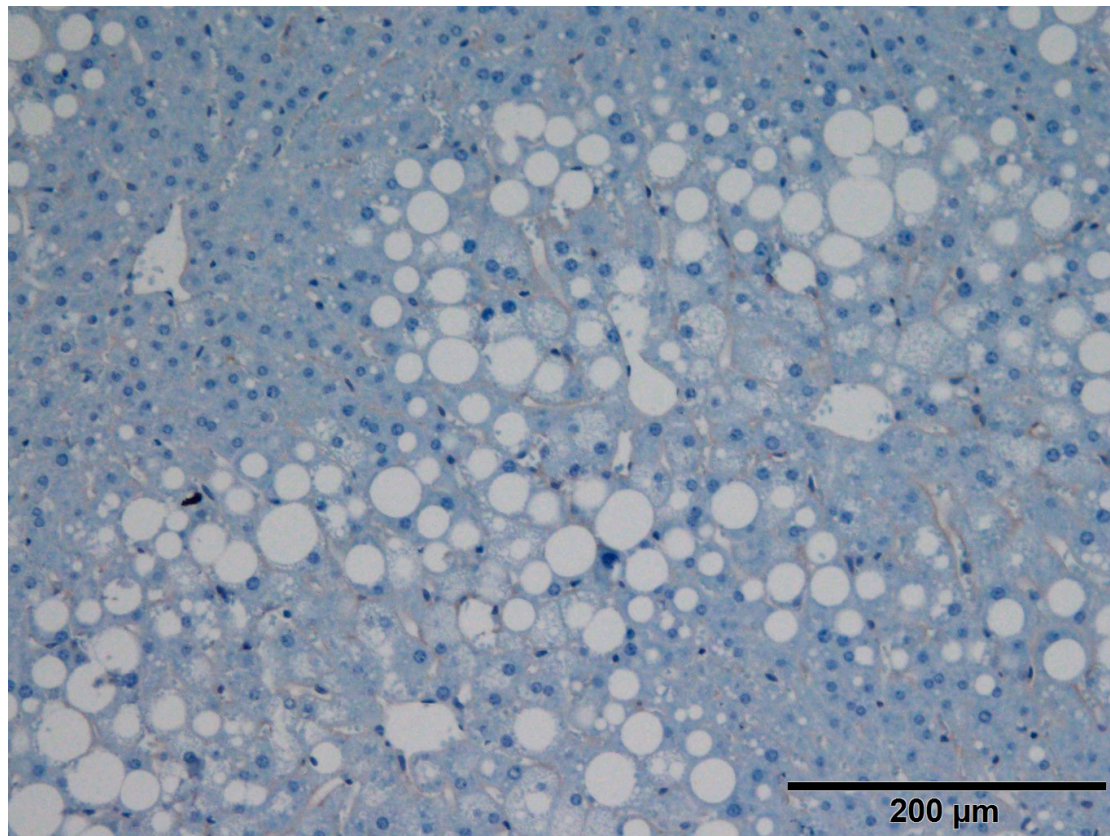
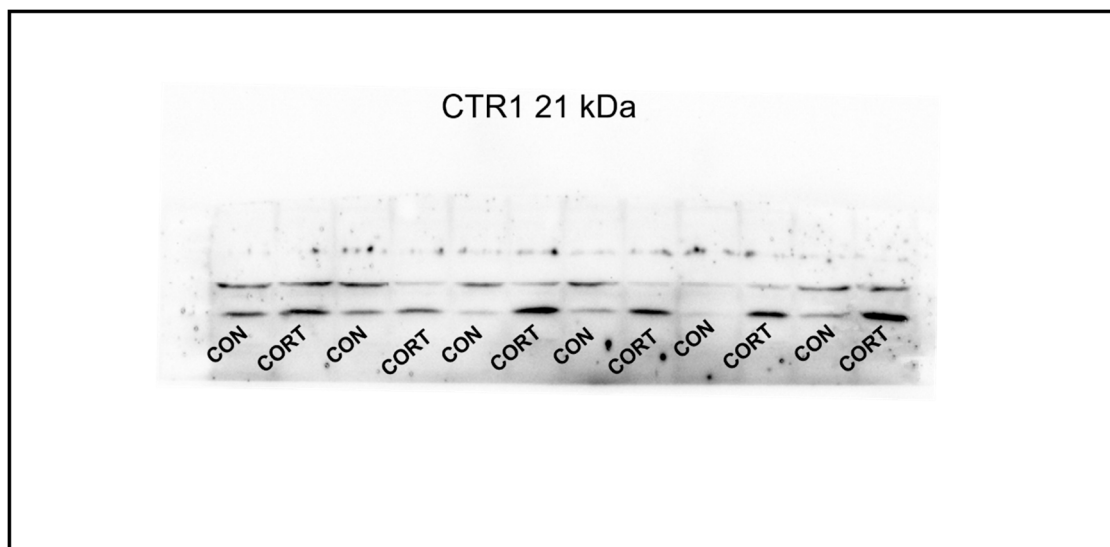
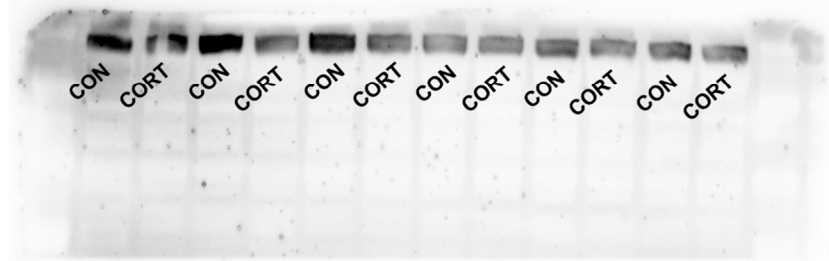


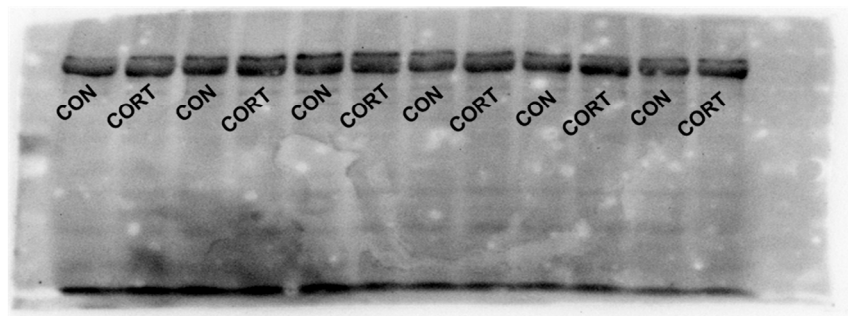
Figure S3D CTR1, ATP7A, ATP7B, DMT1, CP and Tublin- $\alpha$  bands observed in liver of mice.



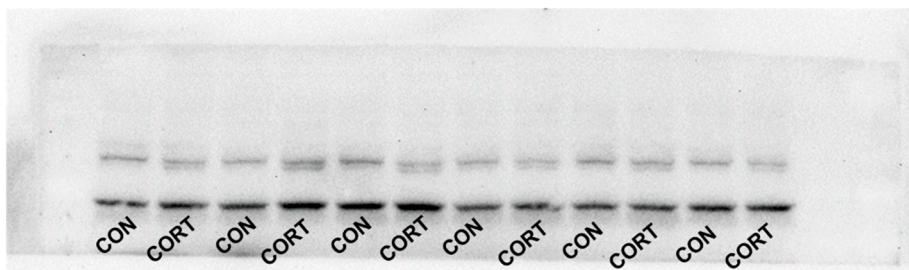
ATP7A 160 kDa



ATP7B 160 kDa



DMT1 62 kDa



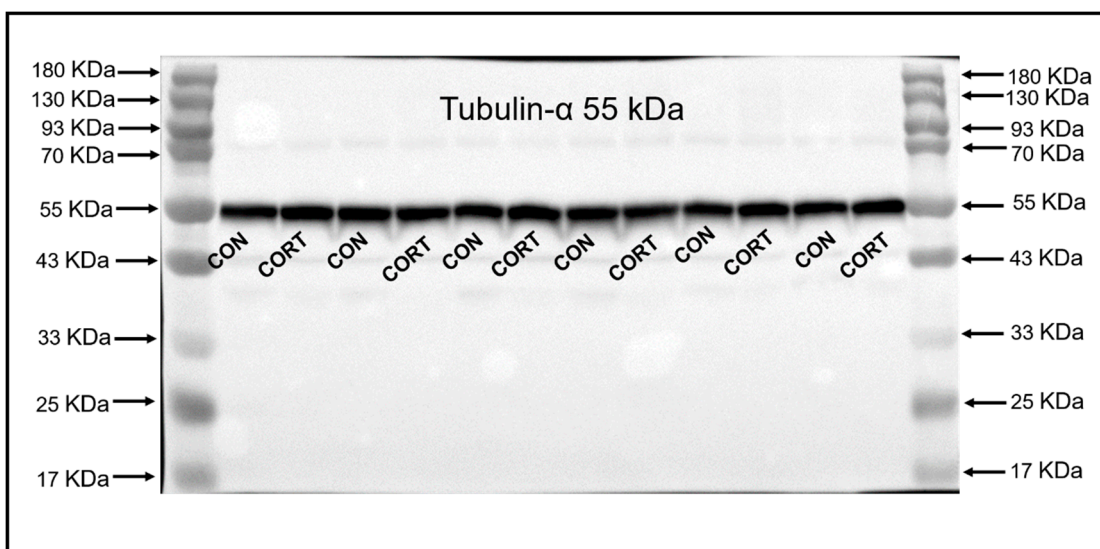
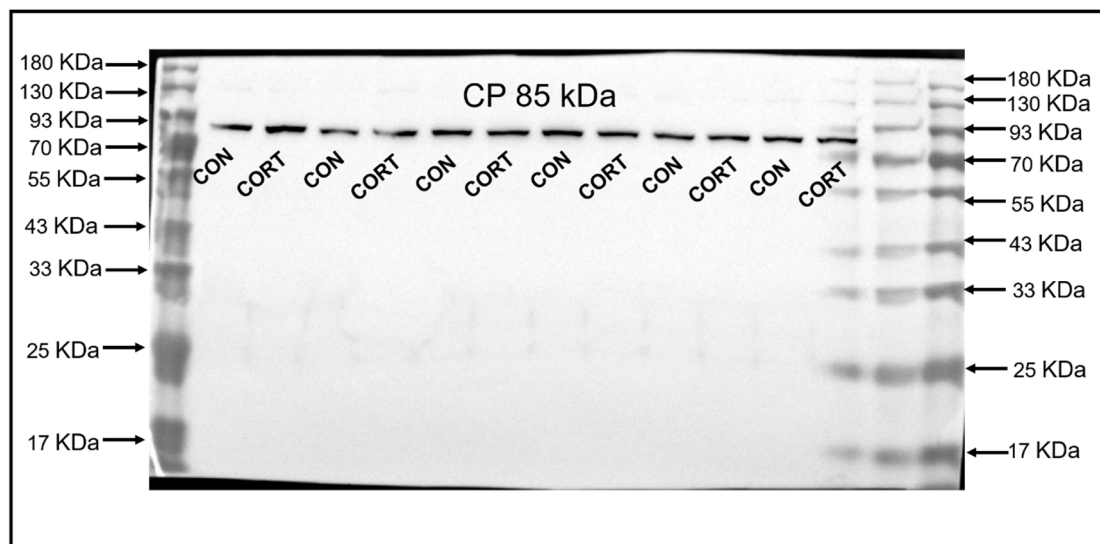
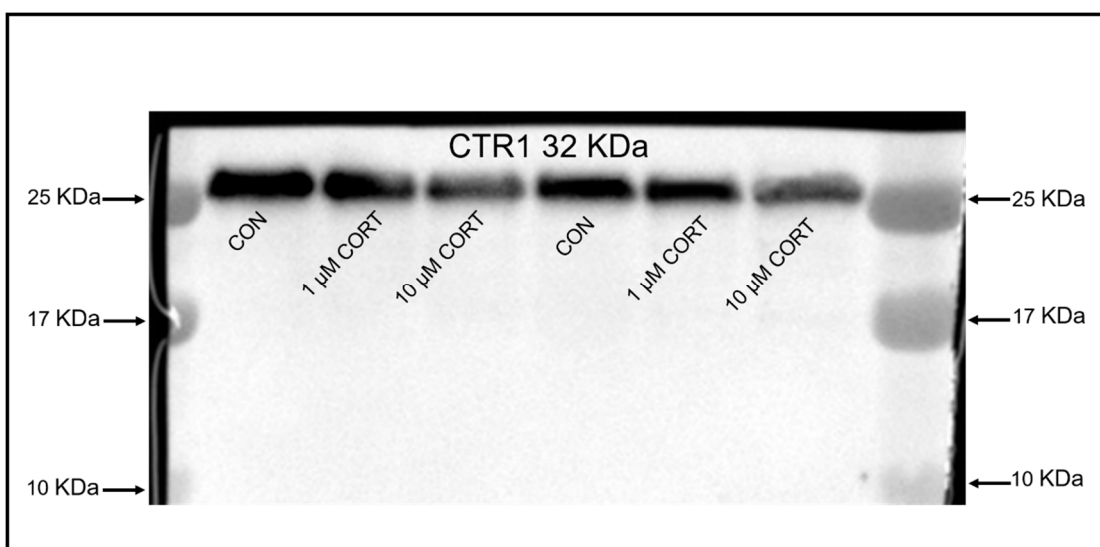


Figure S4A CTR1 and  $\beta$ -Actin bands observed in Caco-2 cells



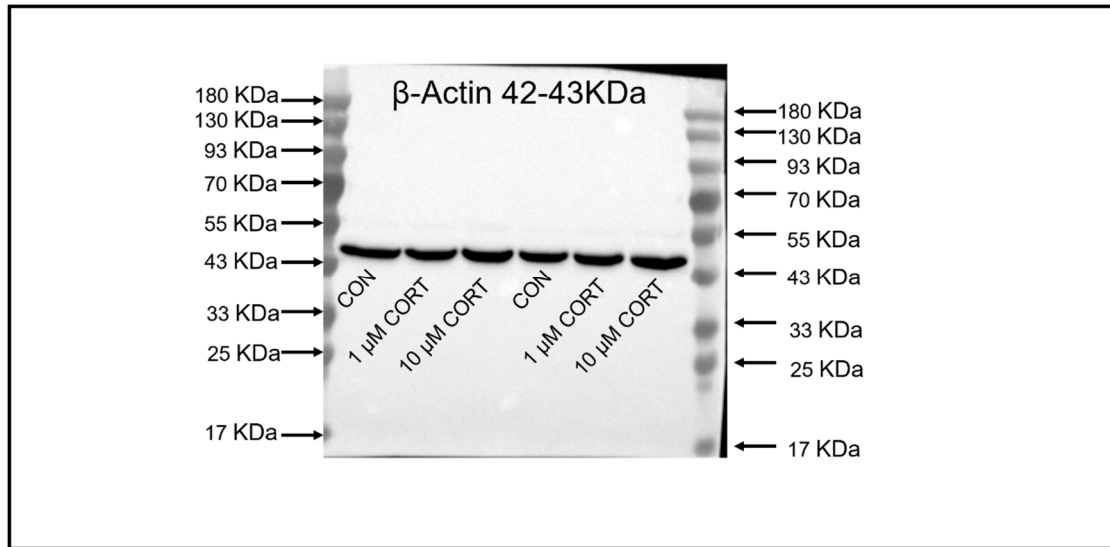
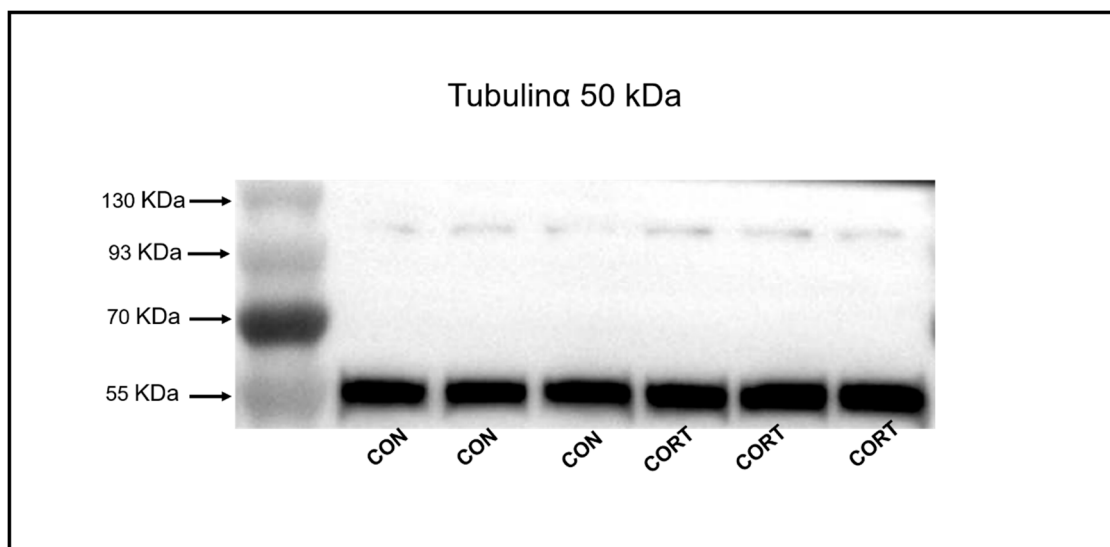
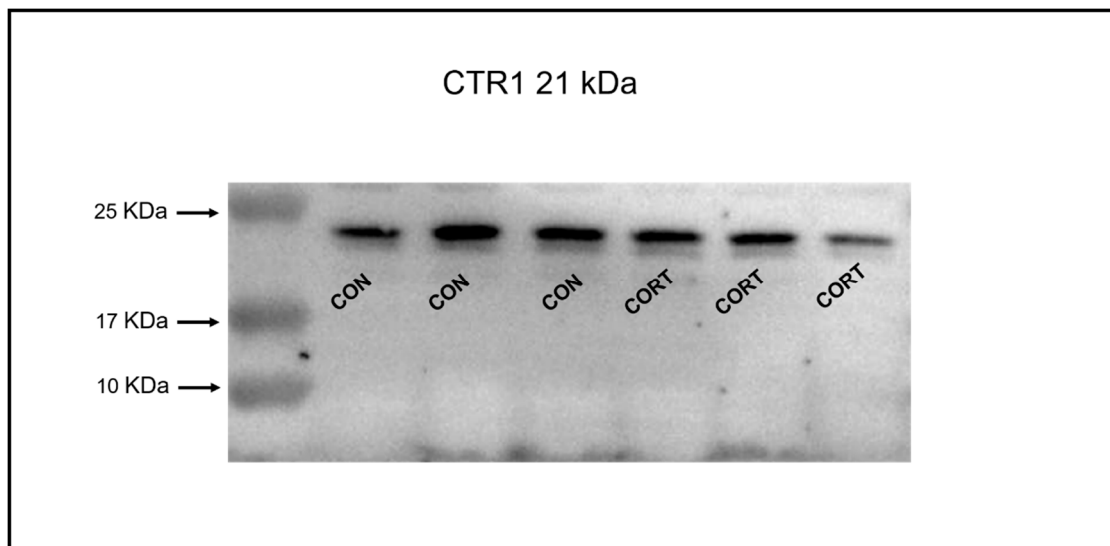


Figure S4B CTR1 and Tubulin- $\alpha$  bands observed in Caco-2 cells



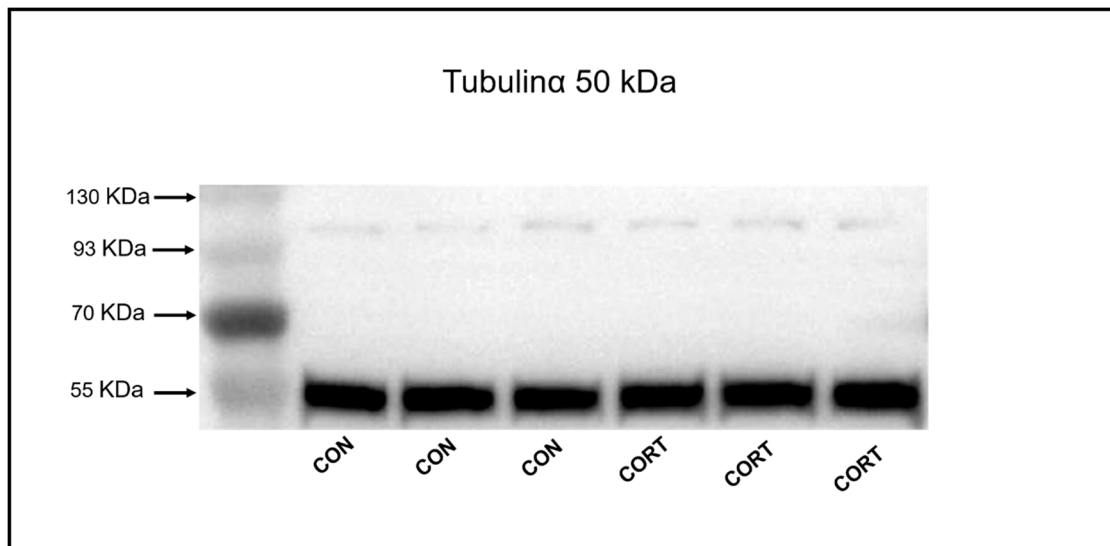
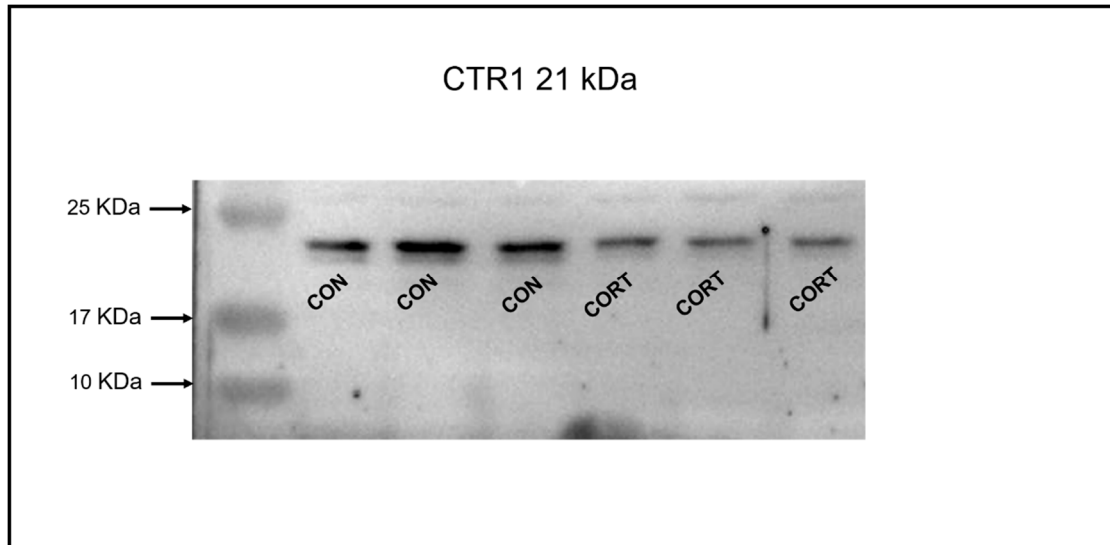
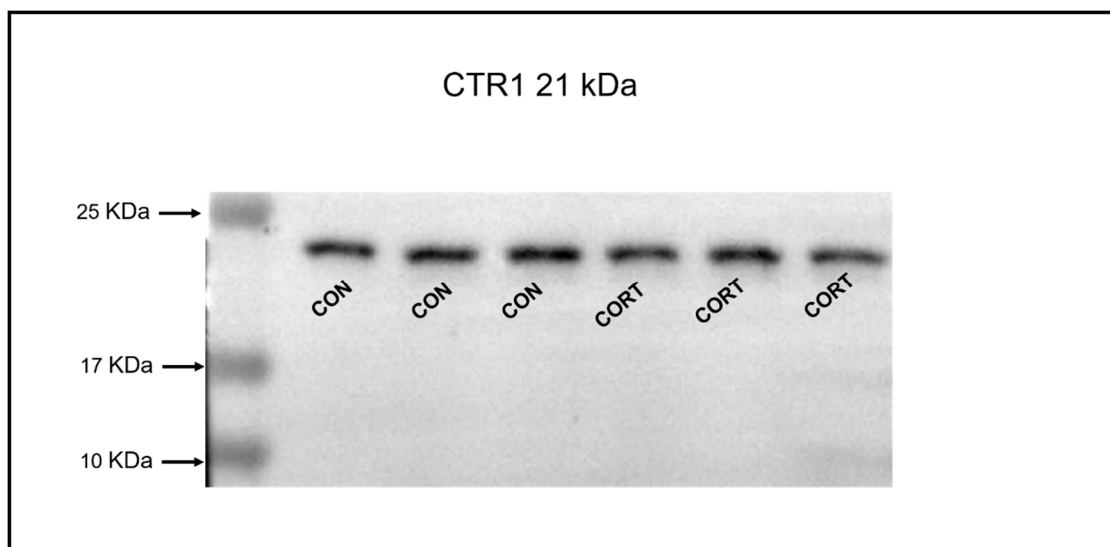


Figure S4C CTR1 and Tubulin- $\alpha$  bands observed in HepG2 cells





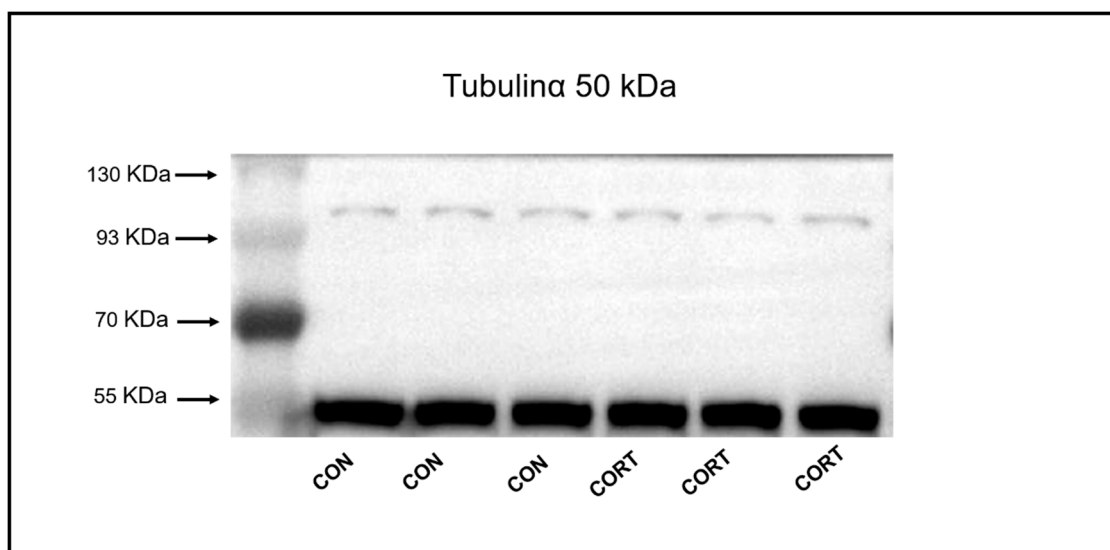
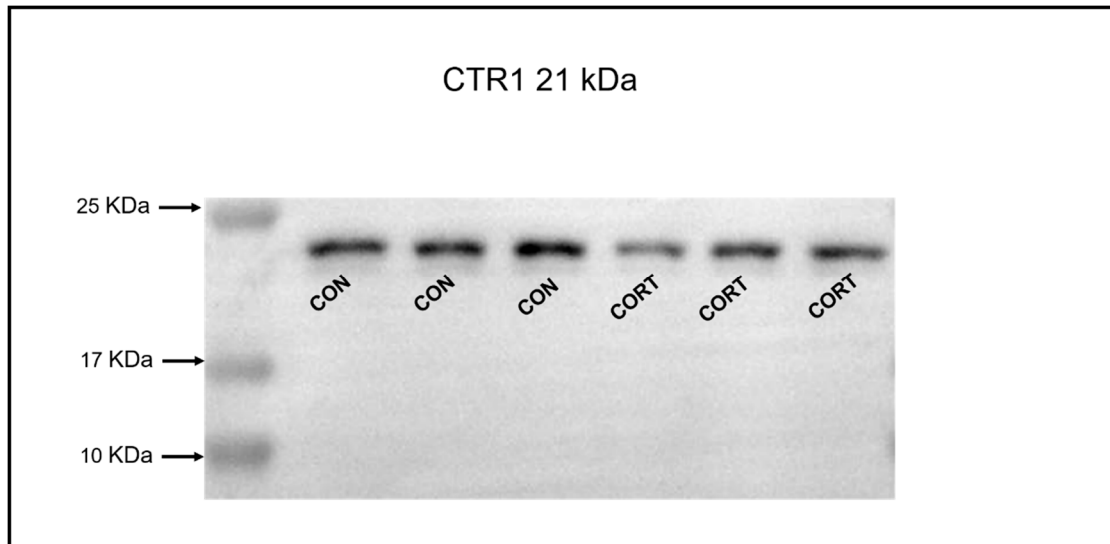
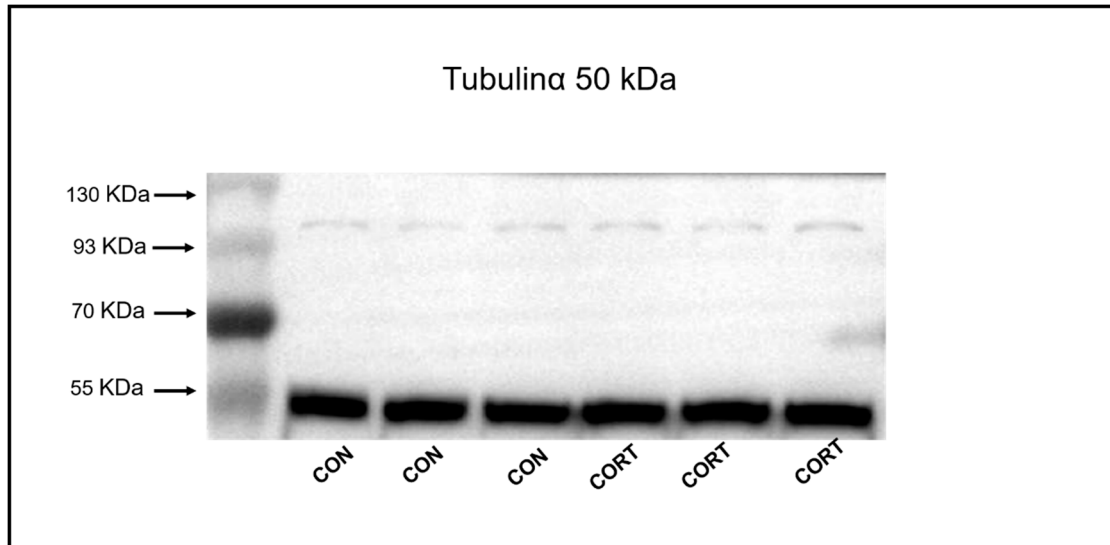


Figure S5A GR, p-GR and  $\beta$ -Actin bands observed in Caco-2 cells



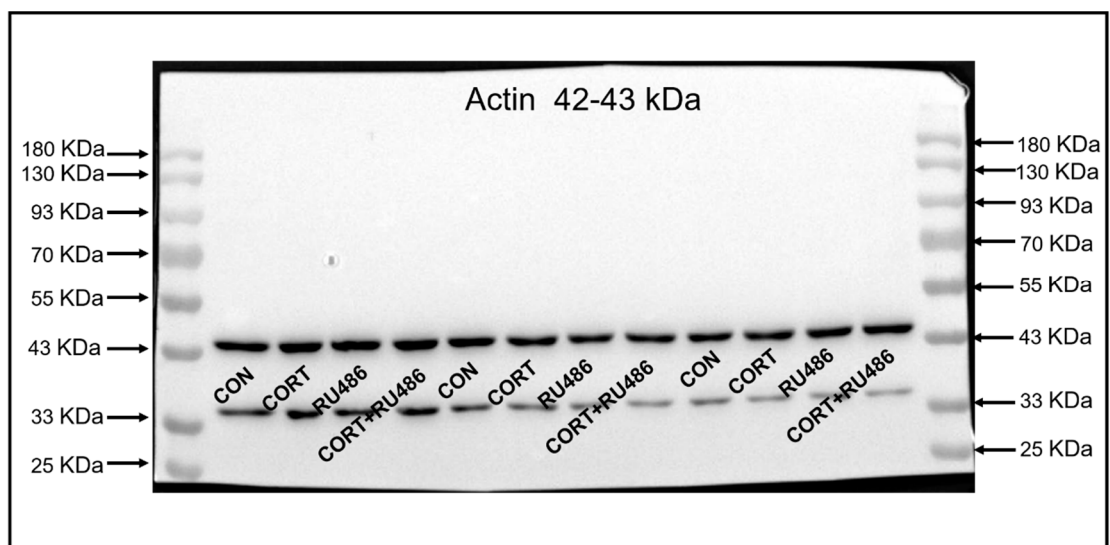
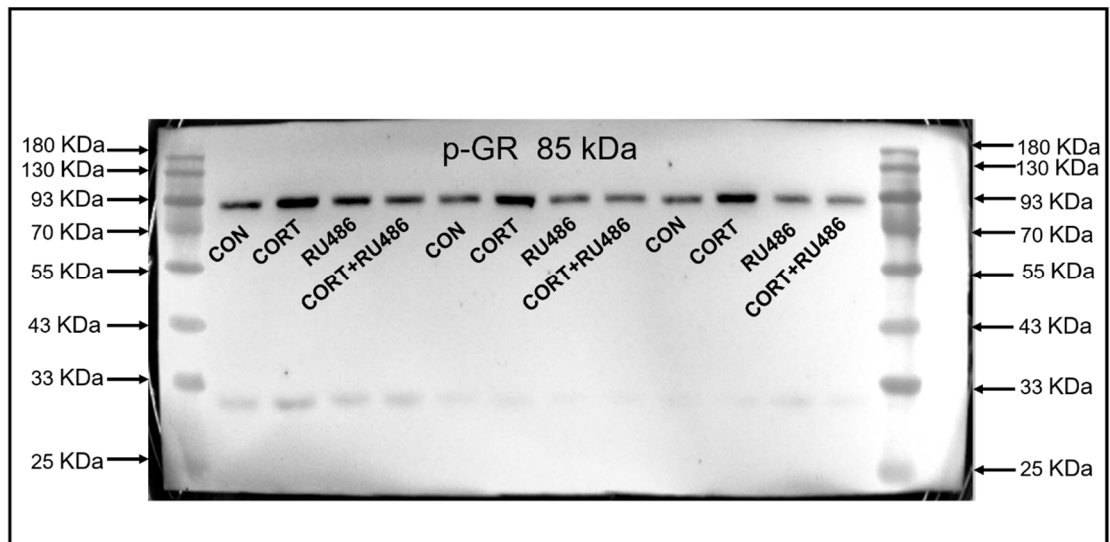
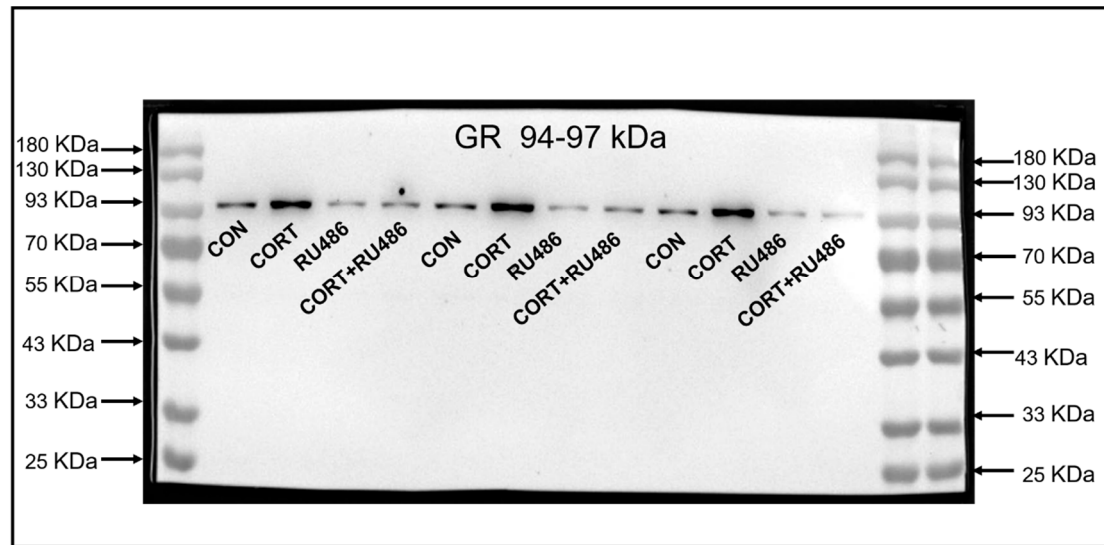
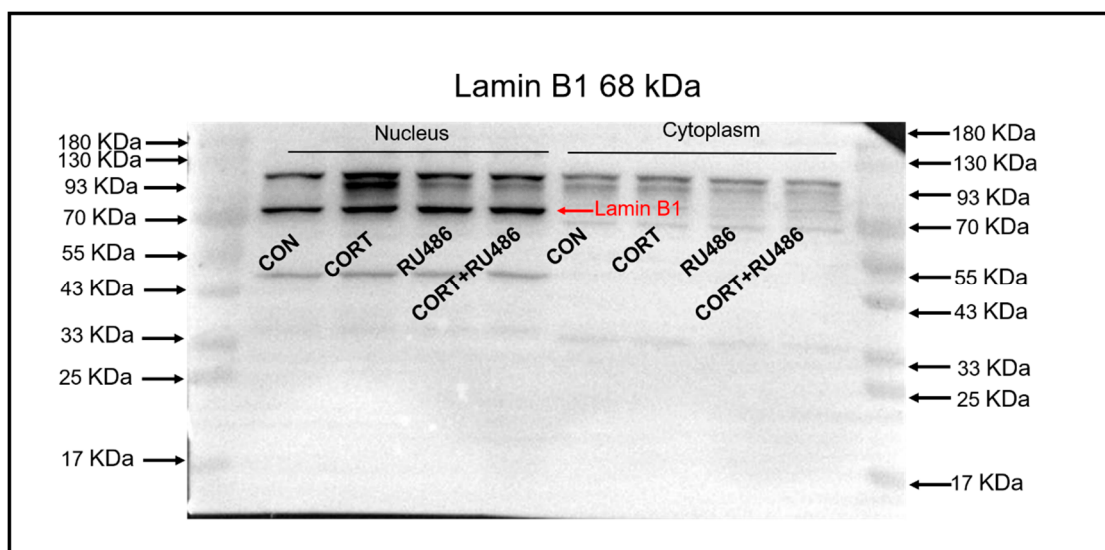
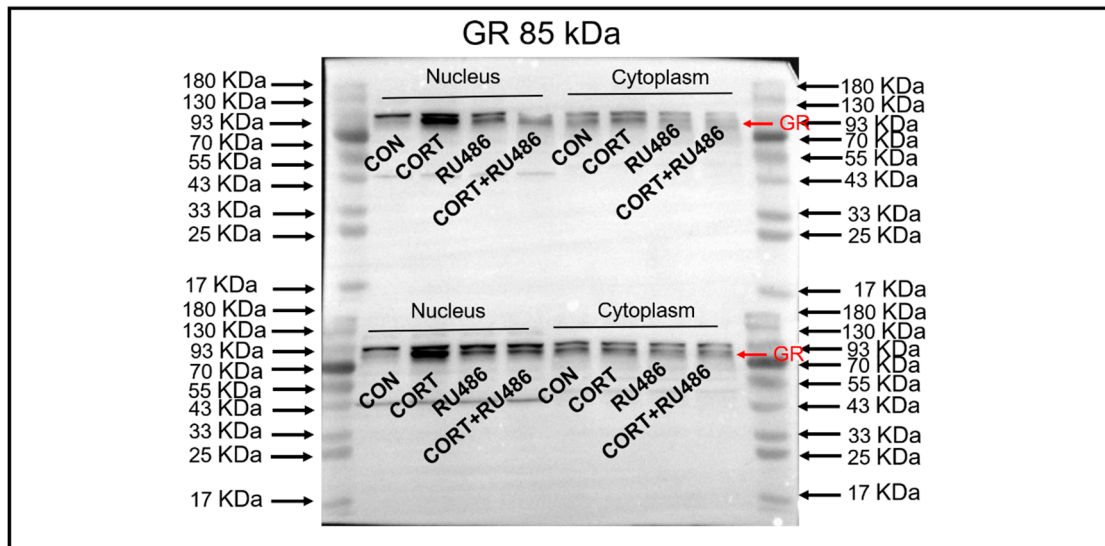
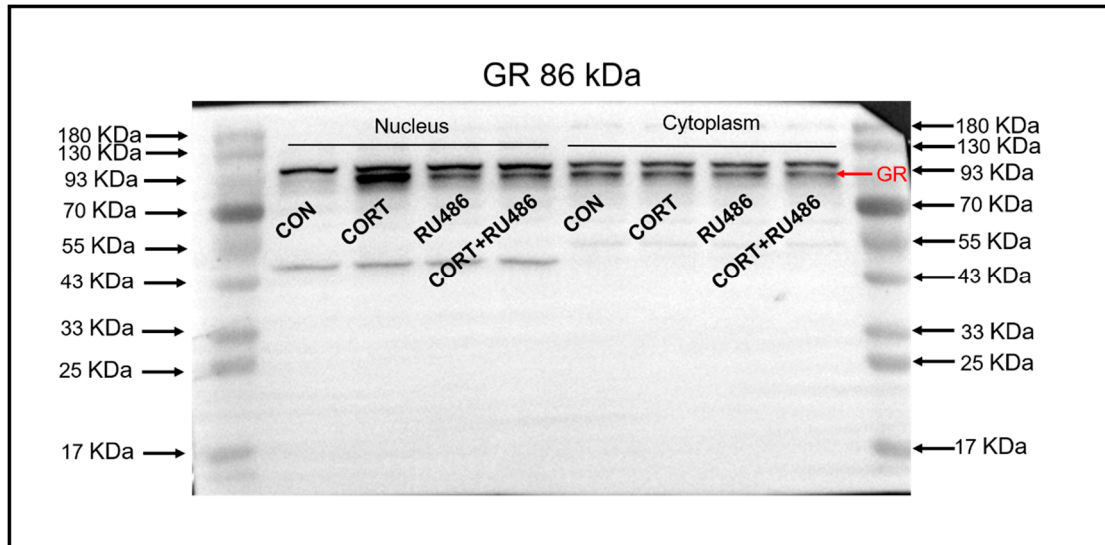


Figure S5B GR, Lamin- $\beta$  and Tubulin- $\alpha$  bands observed in Caco-2 cells



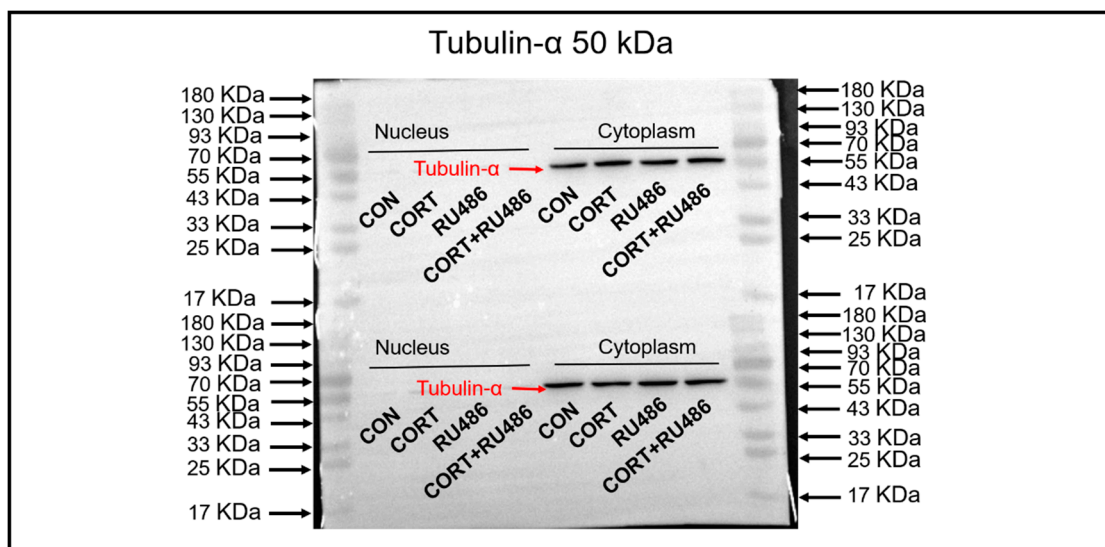
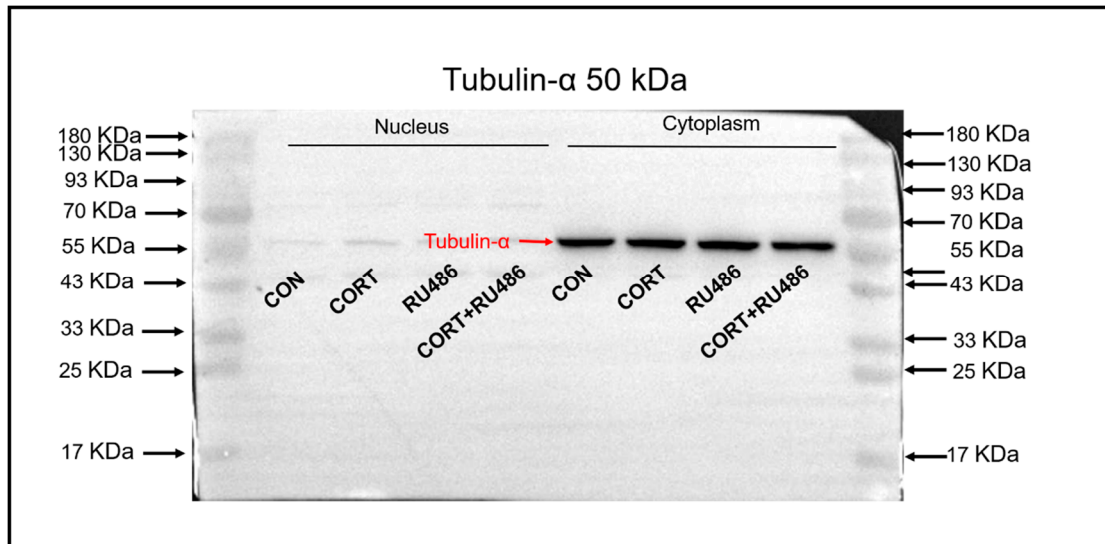
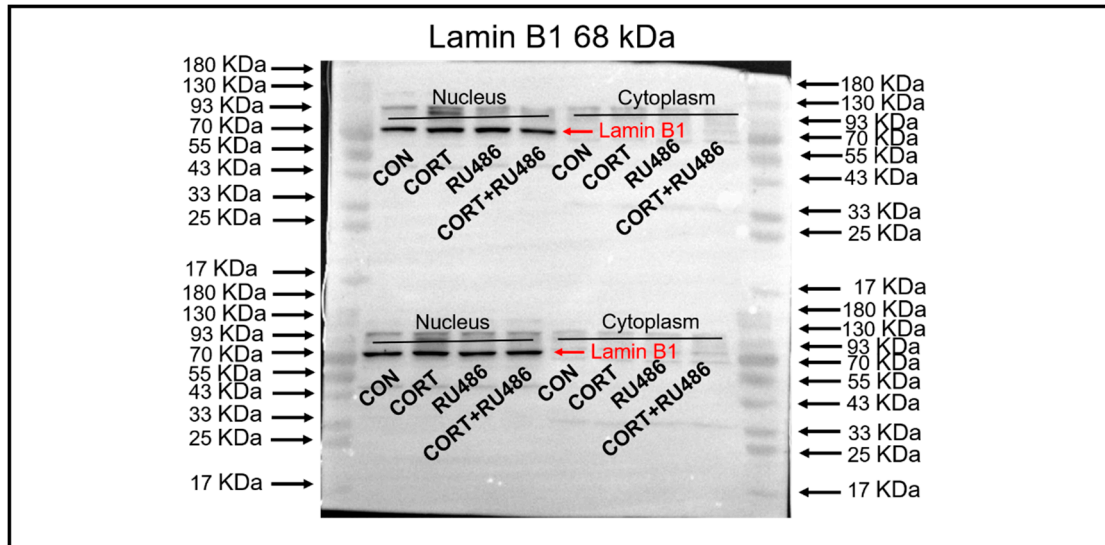


Figure S6B CTR1 and Tubulin- $\alpha$  bands observed in Caco-2 cells

