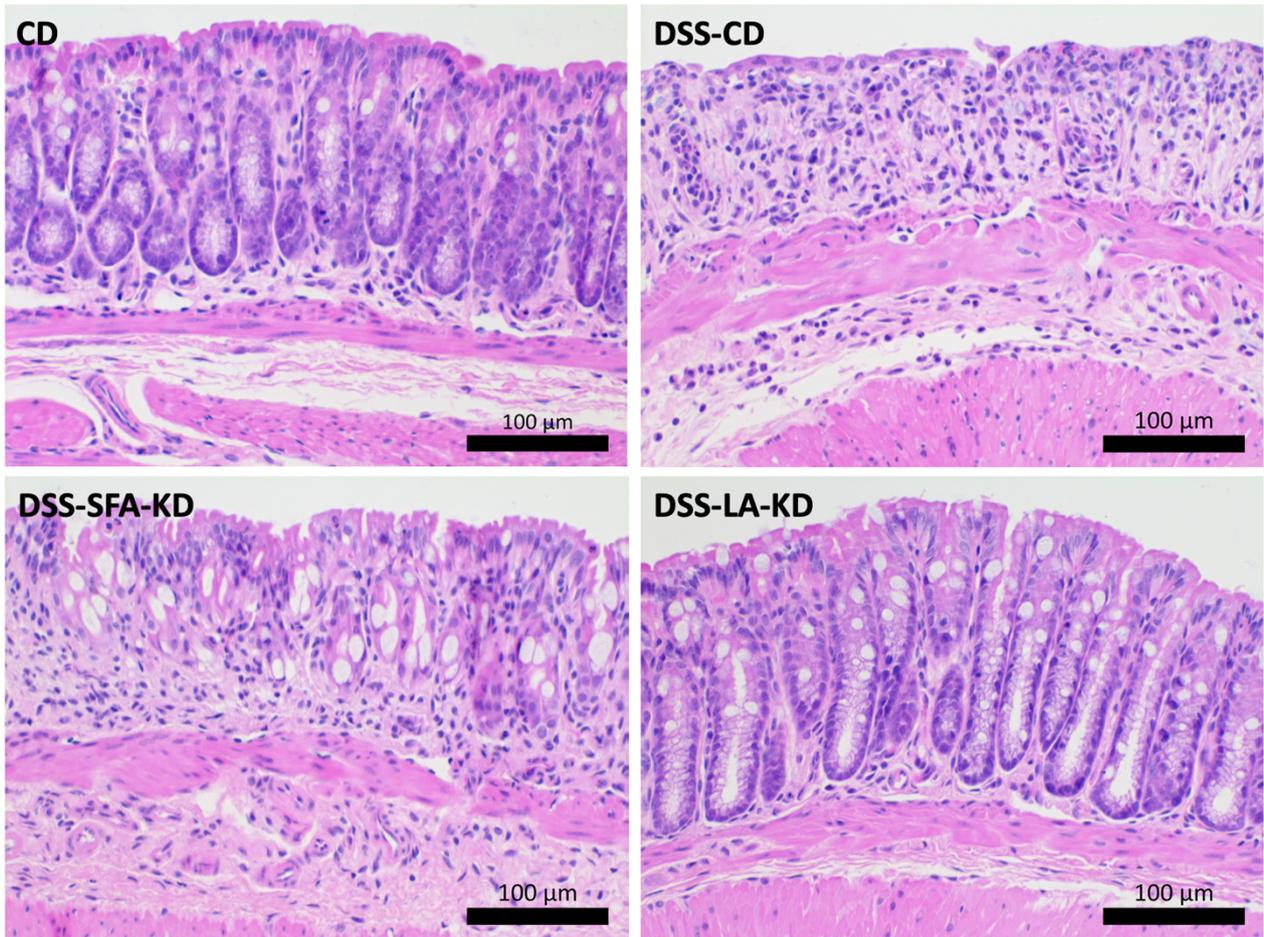


## Supplementary material

**Table S1.** Formulations of study diets. CD = control diet, SFA-KD = ketogenic diet with saturated fatty acids, LA-KD = ketogenic diet with linoleic acid.

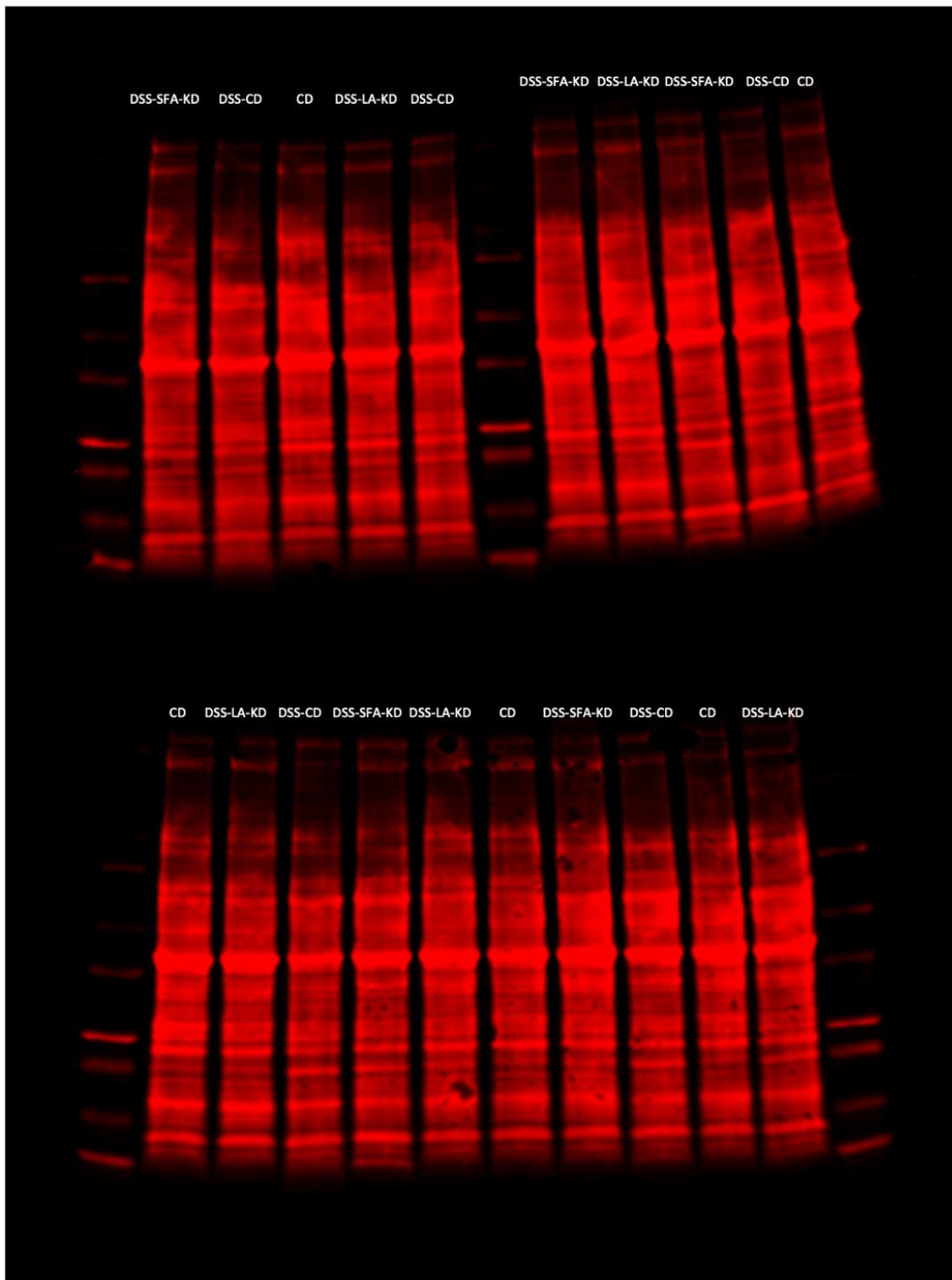
<b>Ingredient</b>	<b>CD</b>	<b>SFA-KD</b>	<b>LA-KD</b>
	TD.220115	TD.220117.PWD	TD.220116.PWD
	<b>g/kg</b>	<b>g/kg</b>	<b>g/kg</b>
Casein	100.0	180.0	180.0
DL-Methionine	1.6	2.88	2.88
Corn Starch	512.46	0	0
Sucrose	100.0	0	0
Maltodextrin	155.0	0	0
Vegetable Shortening	25.0	0	590.0
Safflower Oil	25.0	0	85.0
Cellulose	44.648	70.206	70.164
Mineral Mix, w/o Ca & P (98057)	13.4	24.8	24.8
Calcium Phosphate, dibasic	10.1	18.6	18.6
Calcium Carbonate	5.0	9.4	9.4
Vitamin Mix, w/o choline, A, D, E (83171)	5.0	13.875	13.875
Choline Bitartrate	2.5	4.625	4.625
Vitamin E, DL-alpha tocopheryl acetate (500 IU/g)	0.225	0.41	0.41
Vitamin A, palmitate (500,000 IU/g)	0.027	0.008	0.05
Vitamin D3, cholecalciferol (50,000 IU/g in sucrose)	0.03	0.056	0.056
TBHQ, antioxidant	0.01		0.14
Anhydrous Milkfat		675.0	
Ethoxyquin, antioxidant		0.14	



**Figure S1.** Original microphotographs of HE-stained colon sections. CD = healthy group with control diet, DSS-CD = DSS group with control diet, DSS-LA-KD = DSS group with diet high in linoleic acid, DSS-SFA-KD = DSS group with diet high in saturated fatty acids, HE = hematoxylin and eosin.

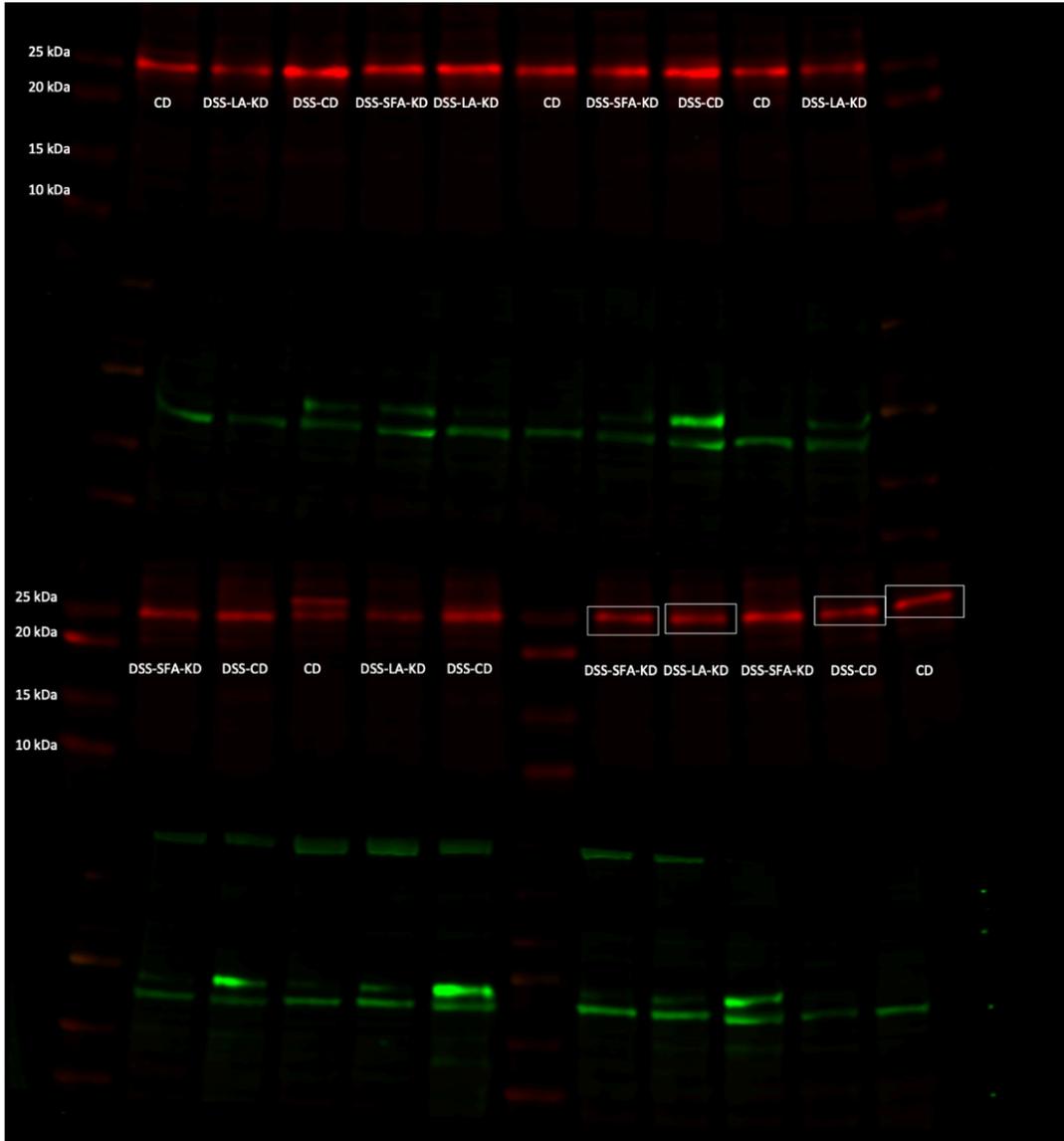


# Total protein for claudin-1 and occludin

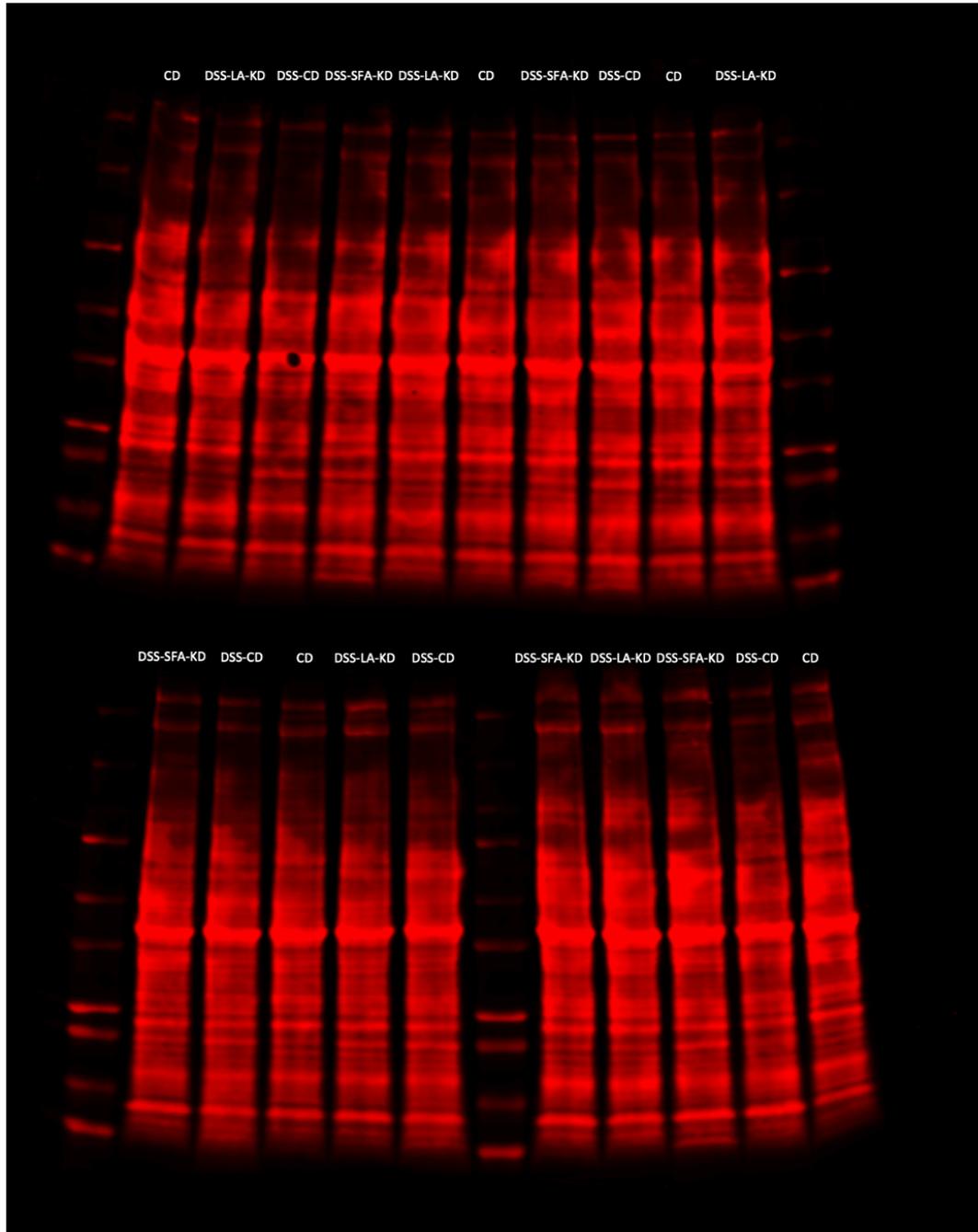


**B**

### Claudin-2

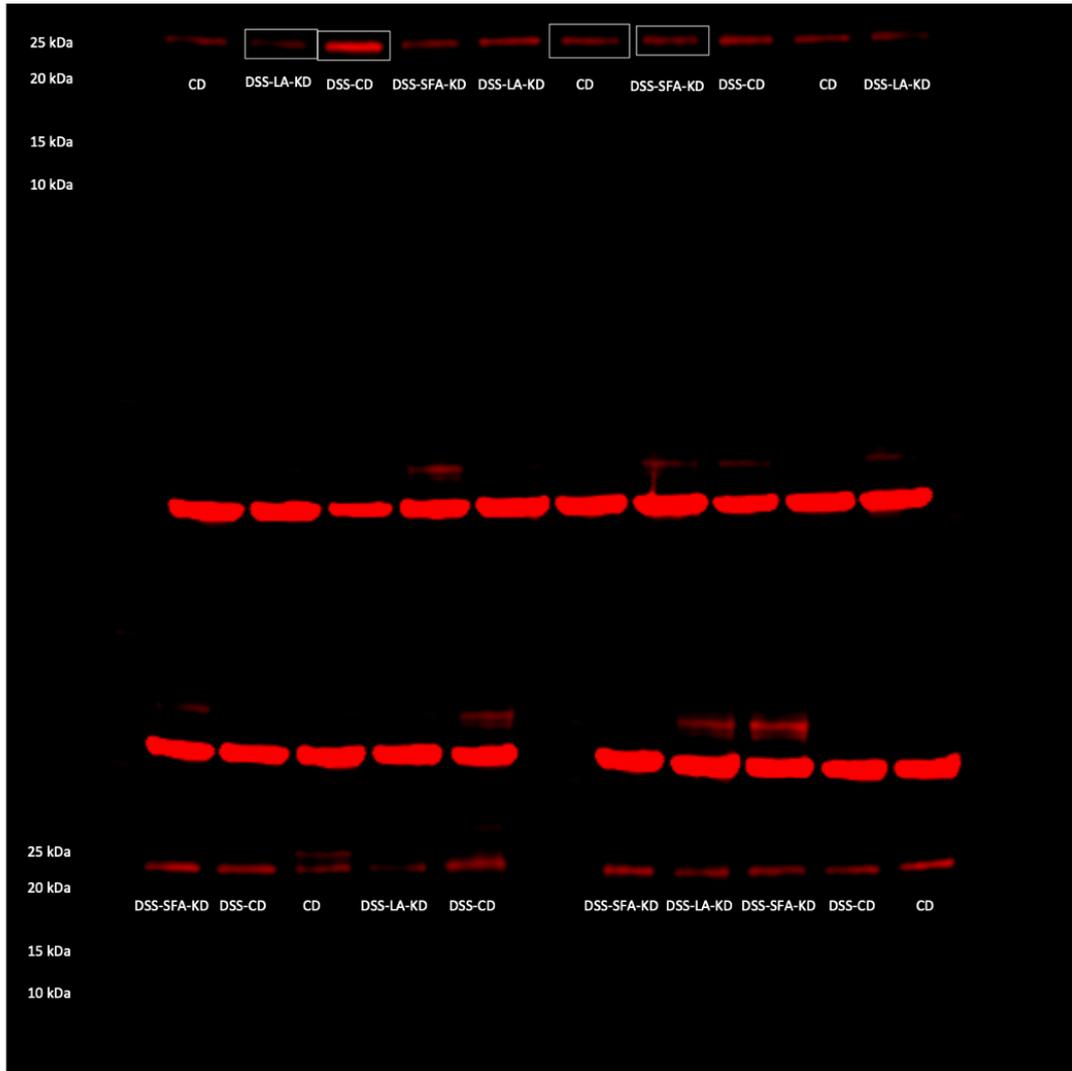


## Total protein for claudin-2

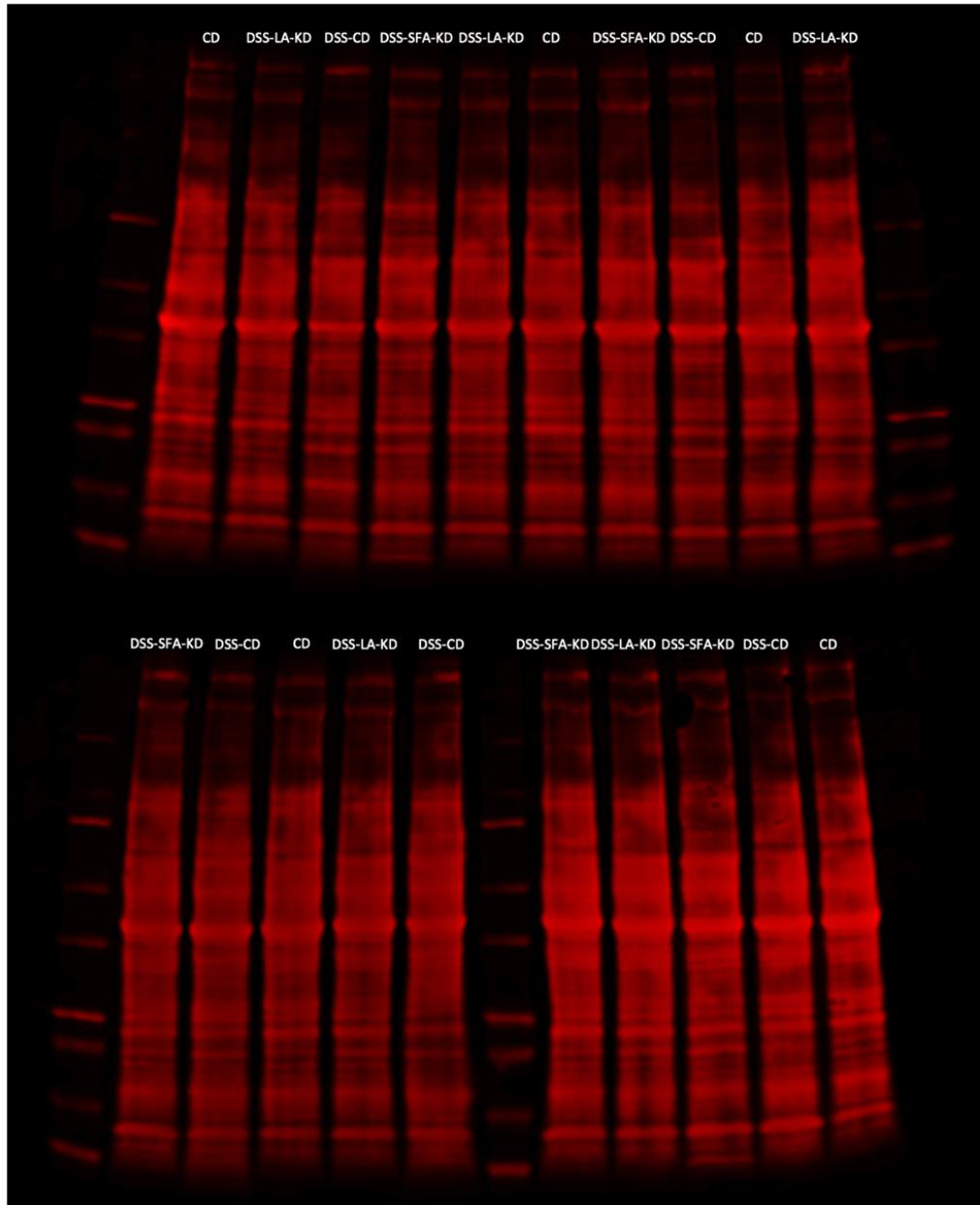


C

### Claudin-4



## Total protein for claudin-4



**Figure S2.** Original and unmodified Western Blot images of colonic tight junction proteins. A. Claudin-1 and occludin, B. claudin-2, C. claudin-4 and total protein. The bands presented in the manuscript are circled. CD = healthy group with control diet, DSS-CD = DSS group with control diet, DSS-LA-KD = DSS group with diet high in linoleic acid, DSS-SFA-KD = DSS group with diet high in saturated fatty acids.