

Table S1: Serum concentrations (median ng/ml; min-max) of selected ceramides and C16:0-LacCer which significantly differentiated patients with CD from Ctr; with UC from Ctr; and CD from UC. Statistical analysis is described in the “Materials and Method” section.

Marker	CD	P CD vs Ctr	UC	p UC vs Ctr	Ctr	P CD vs UC
C16:0-LacCer	2016.0 (1724.6-2684.8)	<0.000001	1611.2 (1155.9-2598.8)	<0.000001	1208.8 (830.6-1602.6)	<0.000001
C18:1-Cer	1.8 (1.0-3.1)	0.028	1.9 (1.1-2.8)	0.00009	1.4 (0.9-2.1)	0.012
C18:0-Cer	281.5 (173.0-384.6)	0.001	225.9 (149.6-326.2)	NS	210.6 (155.5-291.2)	0.00002
C20:0-Cer	19.1 (9.4-29.9)	0.007	19.3 (11.5-28.5)	0.00008	13.0 (9.2-19.0)	NS
C24:0-Cer	725.7 (452.6-984.5)	NS	756.4 (452.2-1173.9)	0.025	661.3 (495.7-897.7)	NS

CD- Crohn’s disease, Ctr – control, UC – ulcerative colitis, NS – not significant

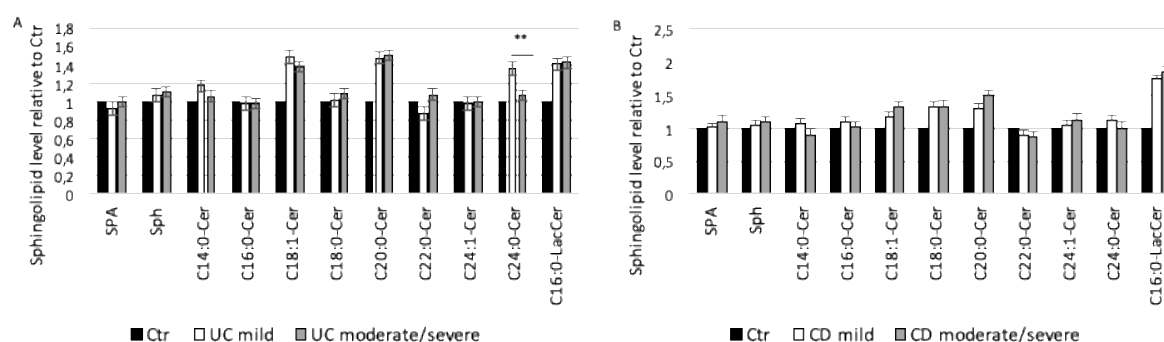


Figure S1. Distribution of sphingolipids for clinical activity in children with ulcerative colitis (UC) (A) and Crohn’s disease (CD) (B). Levels of sphingolipids are presented as a fold change relative to control group (Ctr). The statistical difference was analyzed by Mann-Whitney U test. P values <0.05 were considered significant. ** p < 0.01.

Table S2: Differences in the serum concentration (median ng/ml; min-max) of selected ceramides (C18:1-Cer, C18:0-Cer, C20:0-Cer for CD and C18:1-Cer, C20:0-Cer, C24:0-Cer for UC) and C16:0-LacCer in relation to Paris classification. The Kruskal-Wallis test by ranks was used in statistical analysis.

Paris classification	C16:0-LacCer	C18:1-Cer	C18:0-Cer	C20:0-Cer	C24:0-Cer
CD					
L1	2057.9 (1724.6-2684.8)	1.67 (1.0-2.1)	276.2 (188.3-369.9)	19.6 (9.9-28.8)	NA
L2	1834.2 (1825.4-1972.5)	2.4 (1.8-3.1)	302.3 (231.5-373.1)	22.9 (15.9-29.9)	NA
L3	2055.2 (1828.9-2649.4)	1.68 (1.1-2.6)	283.3 (173.0-384.6)	14.6 (9.4-25.2)	NA
P value	NS	NS	NS	NS	NA
B1	2098.5 (1724.6-2684.8)	1.6 (1.0-2.1)	279.6 (192.6-384.6)	19.7 (9.9-29.9)	NA
B2	2051.3 (1747.6-2614.3)	1.73 (1.1-2.6)	267.5 (173.0-369.9)	18.9 (9.4-27.8)	NA
B2B3	1892.5 (1834.2-2427.7)	2.1 (2.1-3.1)	291.2 (272.8-373.1)	15.9 (15.6-28.1)	NA
P value	NS	NS	NS	NS	NA
UC					
E1	1515.2 (1327.8-1821.5)	1.92 (1.2-2.6)	NA	16.5 (13.7-25.7)	963.9 (629.1-1173.9)
E2	1574.2 (1155.9-2598.8)	1.8 (1.3-2.7)	NA	19.3 (13.2-27.4)	757.8 (665.6-883.1)
E3	1755.6 (1314.1-2141.0)	1.9 (1.1-2.8)	NA	19.5 (11.6-25.2)	701.8 (452.2-1135.8)
E4	1581.9 (1309.4-2206.9)	2.0 (1.6-2.8)	NA	19.8 (14.6-28.5)	755. (478.3-1013.1)
P value	NS	NS	NA	NS	NS

CD- Crohn's disease, UC – ulcerative colitis, NS – not significant, NA - not applicable, L1 – distal 1/3 ileum, L2 - colonic, L3 – ileocolonic, B1 – non-stricturing, non-penetrating, B2 – stricturing, B2B3 - stricturing, penetrating, E1 – ulcerative proctitis, E2 – left-sided colitis, E3 – extensive colitis (hepatic flexure distally), E4 - pancolitis,