Inulin ameliorates schizophrenia via modulating gut microbiota and anti-inflammation in mice

Supplementary Materials

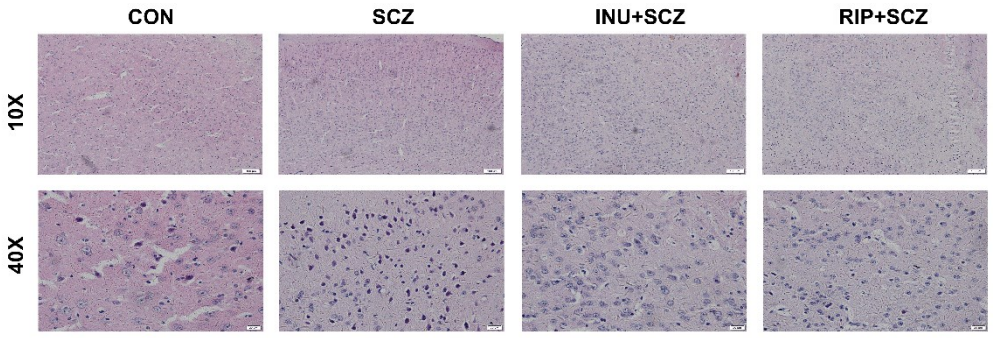

Figure S1 Results of hematoxylin and eosin (HE) staining in brain prefrontal cortex. 10X Bar = 100μm, 40X Bar = 20μm.

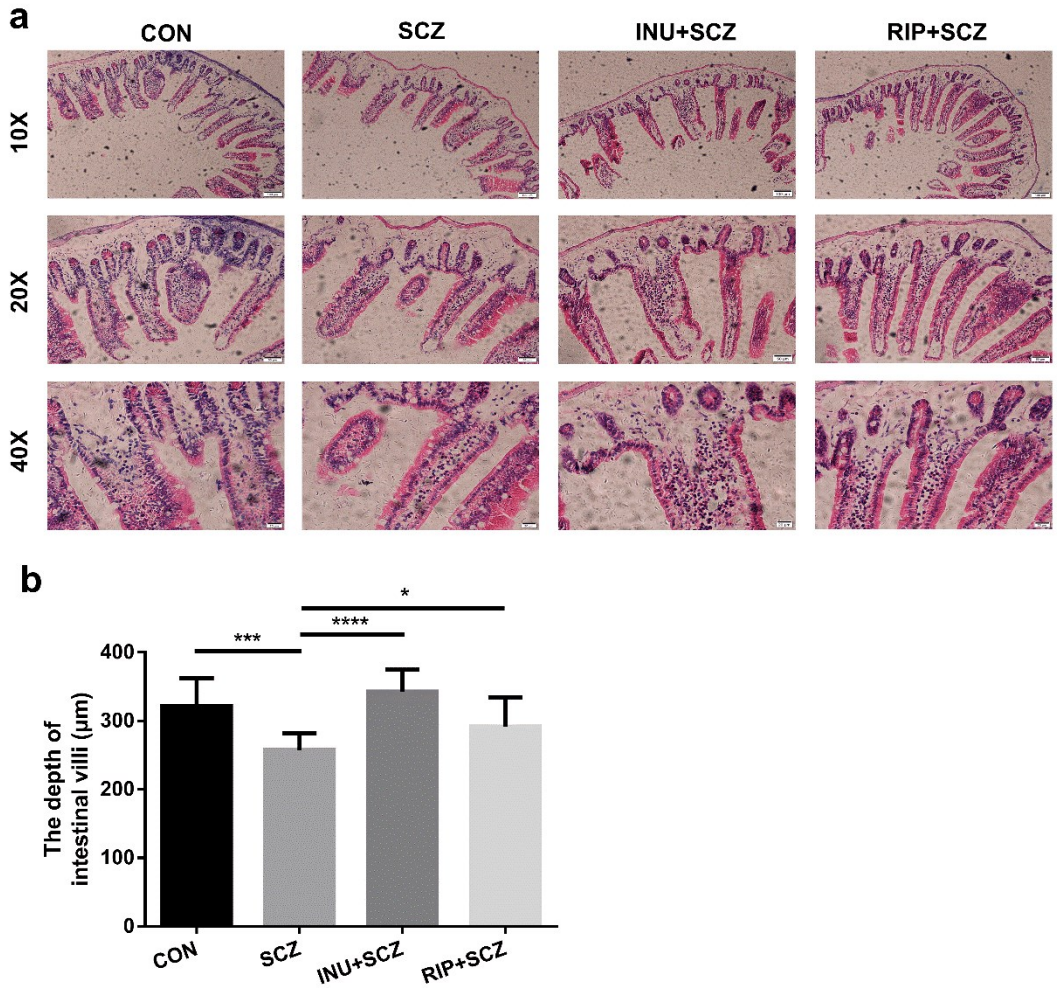

Figure S2 (a) Representative images of small intestine hematoxylin and eosin (HE) staining. 10X Bar = 100μm; 20X Bar = 50μm; 40X Bar = 20μm. (b) The depth of intestinal

villi in diverse groups. Data are expressed as mean ± SEM. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$.

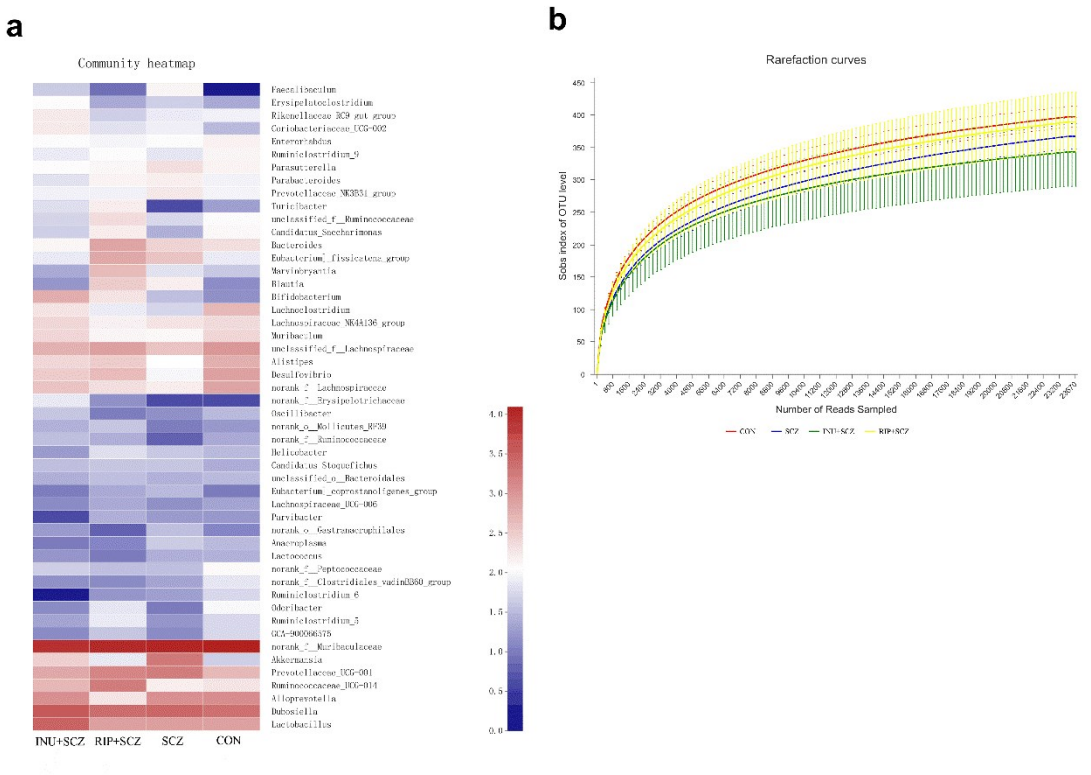

Figure S3 (a) Heat map analysis of microbial community composition in the faeces of mice. (b) Rarefaction curve.

Table S1: Spearman's correlation of relative abundance of individual genera with brain neurotransmitters and BDNF.

genus	HT	DA	BDNF
g__Parasutterella	0.603312	0.111027	-0.298081
g__Blautia	0.55681	-0.06772	-0.418736
g__Parabacteroides	0.504328	0.024087	-0.454272
g__Eubacterium]_fissicatena	0.493419	-0.157202	-0.373825
g__Bacteroides	0.428733	-0.003761	-0.018052
g__norank_f__Muribaculace	0.380594	0.031591	0.048891
g__Akkermansia	0.3129	0.261	-0.710041
g__Marvinbryantia	0.310618	-0.271461	-0.14759
g__Prevotellaceae_UCG-001	0.209101	-0.103046	-0.382851
g__Dubosiella	0.166228	-0.104551	-0.356525
g__Prevotellaceae_NK3B31_	0.068447	0.240692	-0.157954
g__unclassified_f__Ruminoc	0.046669	-0.447874	0.216409
g__Desulfovibrio	-0.050395	-0.318165	0.313652
g__unclassified_f__Lachnos	-0.101542	-0.311395	0.433246
g__Enterorhabdus	-0.106095	0.080512	0.181339
g__Candidatus_Saccharimor	-0.127588	-0.251411	0.415506
g__Alloprevotella	-0.13544	0.334462	0.31678
g__Ruminococcaceae_UCG-	-0.194058	-0.269274	-0.127868
g__norank_f__Lachnospirac	-0.19526	-0.31678	0.450715
g__Ruminiclostridium_9	-0.217031	-0.295404	0.407687
g__norank_f__Peptococcace	-0.229582	-0.335717	0.328942
g__Lachnoclostridium	-0.254327	-0.255079	0.496238
g__Coriobacteriaceae_UCG-	-0.254983	0.230914	0.004513
g__Rikenellaceae_RC9_gut_	-0.425292	0.170493	-0.165224
g__Bifidobacterium	-0.458208	0.224021	-0.152861
g__Lachnospiraceae_NK4A1	-0.487401	-0.122602	-0.045882
g__Turicibacter	-0.492651	-0.081794	0.210328
g__Alistipes	-0.528969	-0.117381	0.461249
g__Muribaculum	-0.54607	-0.034599	0.488906
g__Lactobacillus	-0.566378	0.395637	-0.008274
	r>0.45		

Table S2. Spearman's correlation of relative abundance of individual genera with brain inflammatory factors.

genus	TNFa	IL_1b	IL_6	IL_10
g__Akkermansia	0.6731935	0.56390977	0.7112782	0.72809332
g__Dubosiella	0.3644582	0.47218045	0.19548872	0.22564876
g__Parabacteroides	0.3440091	0.38826196	0.43416115	0.46857361
g__Parasutterella	0.2641297	0.46049674	0.21896169	0.32969517
g__unclassified_f__Ruminococcaceae	-0.425019	-0.4890897	-0.3777277	-0.3598043
g__Candidatus_Saccharimonas	-0.4581765	-0.6207677	-0.6237775	-0.5028228
g__unclassified_f__Lachnospiraceae	-0.4774102	-0.4135338	-0.4842105	-0.5791651
g__Muribaculum	-0.6076814	-0.4721805	-0.5293233	-0.569387
g__Ruminiclostridium_9	-0.6235383	-0.608664	-0.5770255	-0.5011309
g__Desulfovibrio	-0.6250007	-0.5052632	-0.4796992	-0.5144792
g__norank_f__Peptococcaceae	-0.6733235	-0.4996239	-0.6380739	-0.48965
g__norank_f__Lachnospiraceae	-0.702072	-0.4595713	-0.5626176	-0.565839
g__Lachnoclostridium	-0.7167613	-0.4565626	-0.7040241	-0.5917983
g__Alistipes	-0.7446332	-0.7536668	-0.7514104	-0.6809631