

Table S1 List of assay kits used in this experiment.

Transcripts	Company Name	Product Number
Mouse LPS ELISA Kit	YOBIBIO	U96-3299E
CAT assay kit	Nanjing Jiancheng	A007-1-1
GSH-Px assay kit	Nanjing Jiancheng	A005-1-2
SOD assay kit	Nanjing Jiancheng	A001-3-2
MDA assay kit	Nanjing Jiancheng	A003-1-2
BCA assay kit	Nanjing Jiancheng	A045-4-2
QuantiCyto® Mouse IL-1 β ELISA kit assay kit	NeoBioscience	EMC001b.96
QuantiCyto® Mouse TNF- α ELISA kit	NeoBioscience	EMC102a.96
QuantiCyto® Mouse IL-6 ELISA kit	NeoBioscience	EMC004.96

Table S2 Primer sequences and product lengths of target gene fragments.

Transcripts	Accession number		Primer sequence (5'-3')	Product length (bp)
Claudin-1	NM_016674.4	Forward	ATTTACTCCTATGCCGGCGA	245
		Reverse	ACCTCATCGTCTTCCAAGCA	245
Occludin	NM_001360538.1	Forward	TTGAAAGTCCACCTCCTTACAGA	129
		Reverse	CCGGATAAAAAGAGTACGCTGG	129
Nrf2	NM_010902.5	Forward	AAAATCATTAACCTCCCTGTTGAT	118
		Reverse	CGGCGACTTTATTCTTACCTCTC	118
Keap1	NM_001110307.1	Forward	GCGTGGAGAGATATGAGCCA	105
		Reverse	CATACAGCAAGCGGTTGAGC	105
HO-1	NM_010442.2	Forward	AAGCCGAGAATGCTGAGTTCA	100
		Reverse	GCCGTGTAGATATGGTACAAGGA	100
GSP-Px	NM_001329860.1	Forward	TGCTTGCCTCCTAAATGCTG	81
		Reverse	CCCAGAATGACCAAGCCAA	81
SOD1	NM_011434.2	Forward	GAACCATCCACTTCGAGCAG	265
		Reverse	ATCACACGATCTTCAATGGAC	265
IL-1 β	XM_006498795.5	Forward	TCGCAGCACATCAACAAGAG	97
		Reverse	AGGTCCAGGGAAAGACACAGG	97
IL-6	NM_001314054.1	Forward	TTC CAT CCA GTT GCC TTC TTG	99
		Reverse	GGG AGT GGT ATC CTC TGT GAA GTC	99
TNF- α	NM_001278601.1	Forward	GCCTCTTCTCATTCTGCTTGTGG	149
		Reverse	GTGGTTTGTGAGTGTGAGGGTCTG	149

Table S3 List of antibodies used in this experiment.

Transcripts	Company Name	Product Number
Occludin	ProteintechGroup	27260-1-AP
Claudin-1	ProteintechGroup	13050-1-AP
β -actin	ProteintechGroup	20536-1-AP

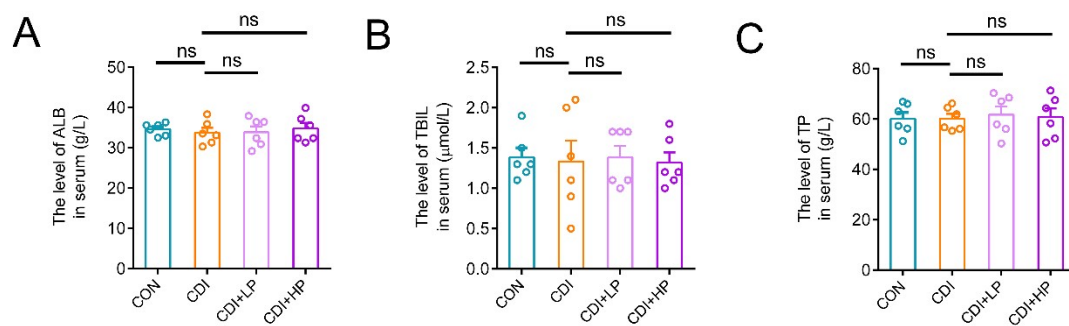


Fig. S1. Effects of pterostilbene on ALB, TBIL and TP in CDI mice (A) The level of ALB in the serum. (B) The level of TBIL in the serum. (C) T The level of TP in the serum.

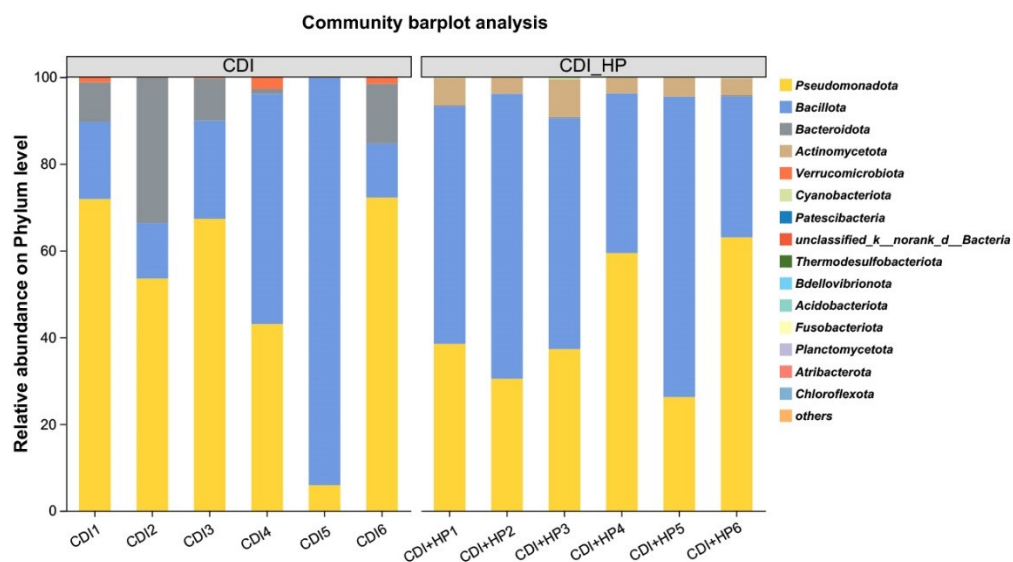


Fig. S2. Composition of gut microbiota (Top 15 phyla).

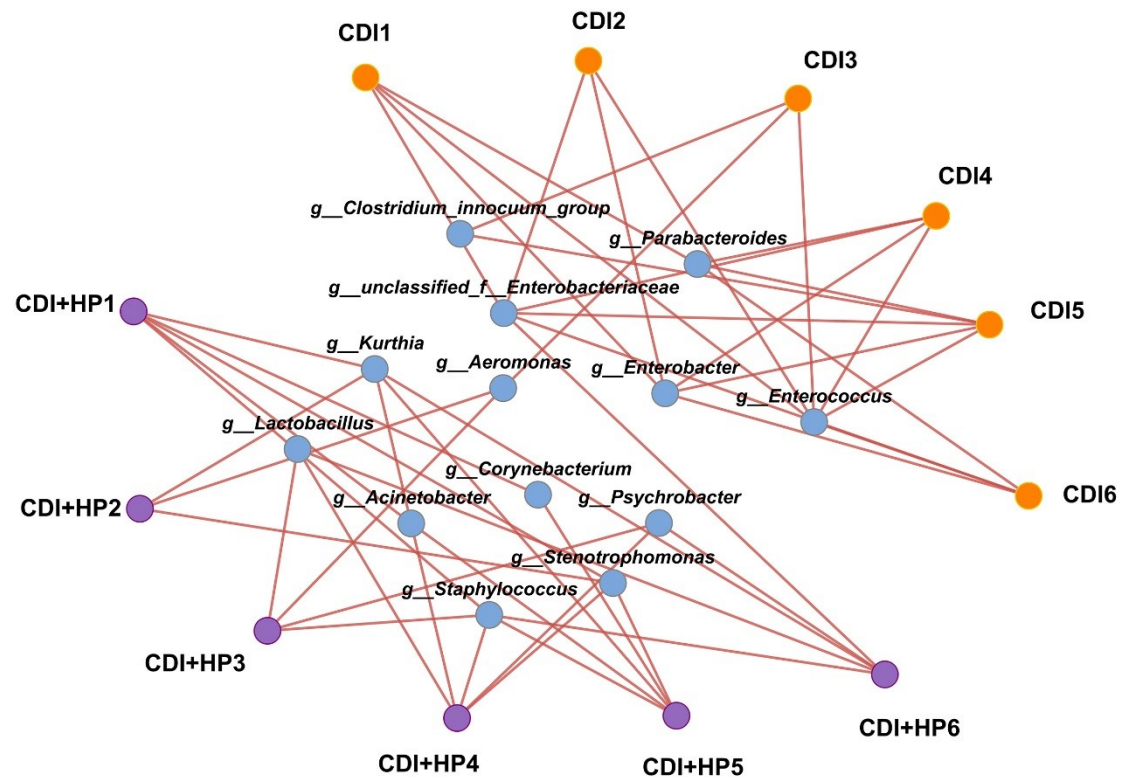


Fig. S3. Pterostilbene changes in gut core bacterial genera in CDI mice. Collinearity analysis between CDI group and CDI+HP group.

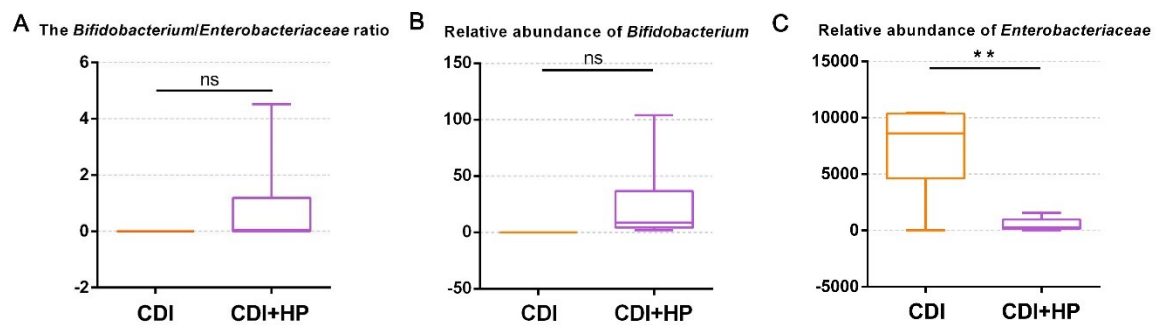


Fig. S4. Effects of Pterostilbene on specific bacterial ratios of gut microbiota. (A) Effect of Pterostilbene on *Bifidobacterium*/*Enterobacteriaceae* ratio. (B) Effect of Pterostilbene on *Bifidobacterium* relative abundance. (B) Effect of Pterostilbene on *Enterobacteriaceae* relative abundance.