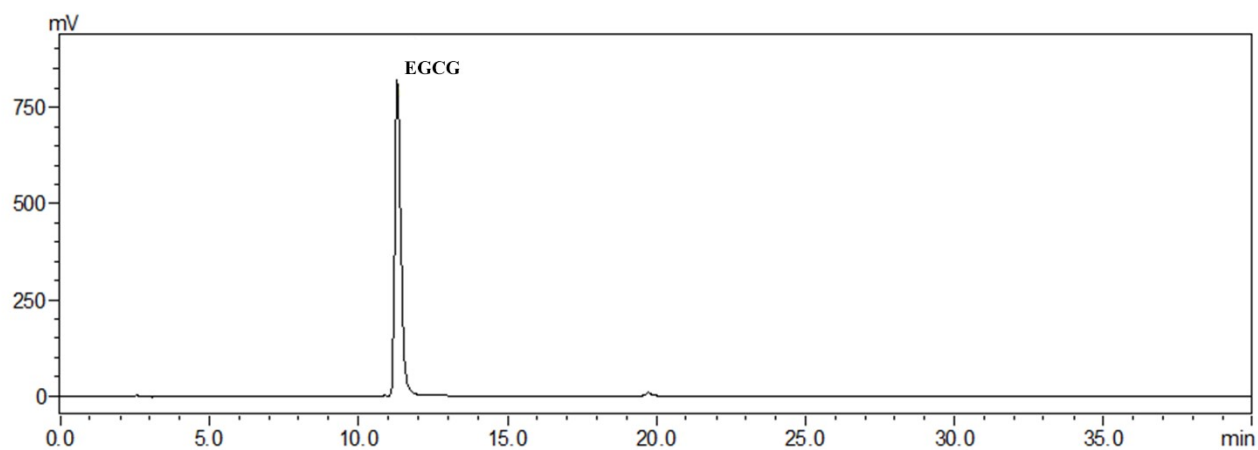
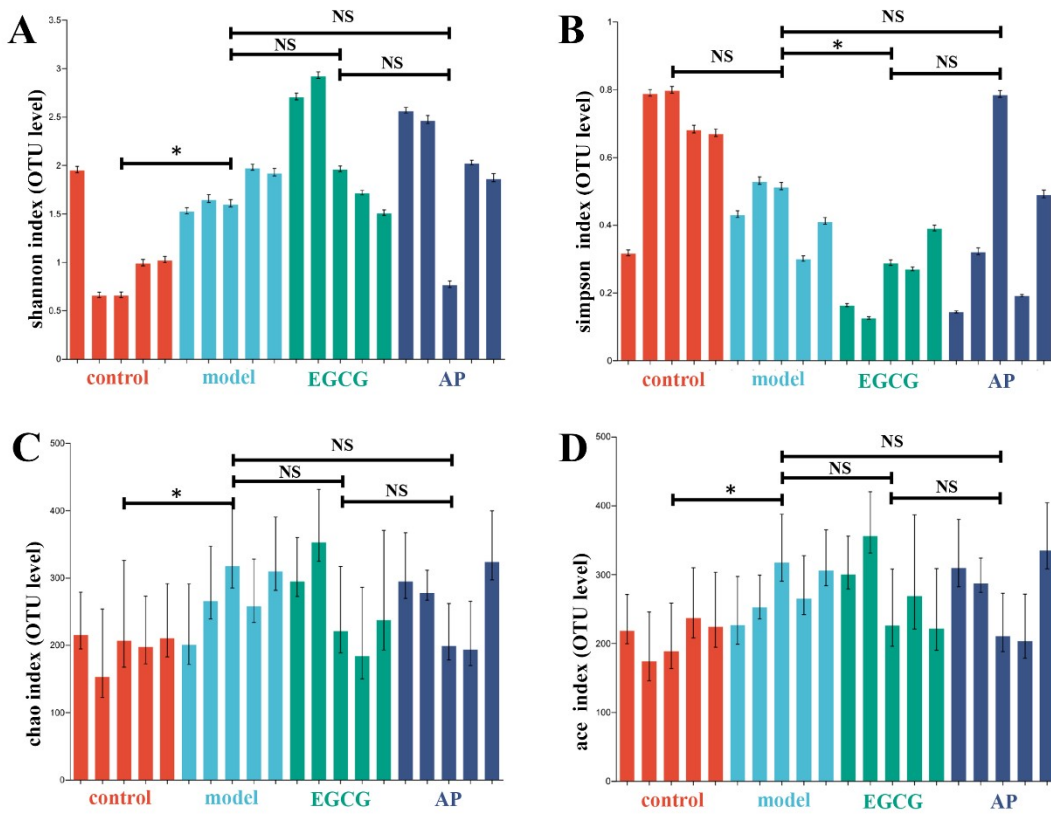


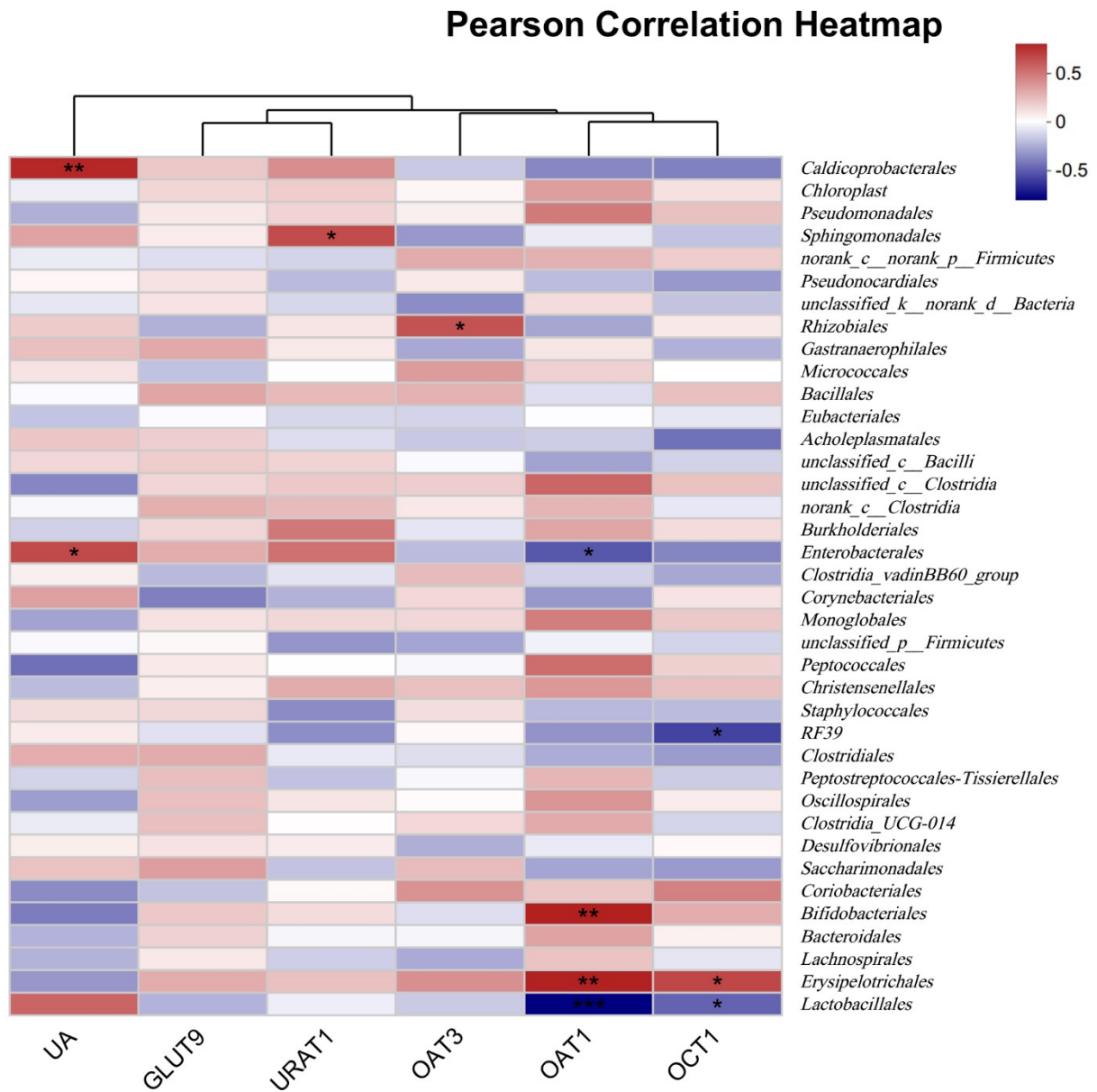
**Fig. S1. The chromatogram of EGCG by HPLC analysis.**



**Fig. S2. Alpha diversity of the gut microbiota on OTU level. (A) shannon index, (B) simpson index, (C) chao index and (D) ace index.**



**Fig. S3. Spearson correlation analysis between the bacteria on order level and UA-related parameters** (UA level in serum and gene expression in kidney; \*:  $p < 0.05$ , \*\*:  $p < 0.01$  and \*\*\*:  $p < 0.001$ ).



**Table S1 Primers of RT PCR**

Genes	Sequence of primers
<i>Urat1</i>	Forward: 5'-CTGTTAAGTGGCCTAGCTG-3' Reverse: 5'-CTTCACTGACTGTTTCTGGA-3'
<i>Glut9</i>	Forward: 5'-GTGGACTCAATGCGATCTG-3' Reverse: 5'-TGATGTATGGGATCTTGCCT-3'
<i>Oat1</i>	Forward: 5'-TGTGCCTTTTTTCGTTG-3' Reverse: 5'-TAGCCCCCTCTTCTTGT-3'
<i>Oat3</i>	Forward: 5'-GATCTACAACAGCACCAGAGAC-3' Reverse: 5'-TATACCTGCCATGAAGACTGAC-3'
<i>Oct1</i>	Forward: 5'-GCCAGTCAACACCAAAGCG-3' Reverse: 5'-CCATAGCGAGCCCAACATC-3'
<i>β-actin</i>	Forward: 5'-CACTGTCGAGTCGCGTCC-3' Reverse: 5'-TCATCCATGGCGAACTGGTG-3'

**Table S2 Description of the sequencing data and mapping information**

Sample	Raw reads	Raw bases	Clean reads	Clean bases	Error rate	Q20	Q30	GC content	Total mapped	Multiple mapped	Unique mapped
control1	59554992	8992803792	59078078	8741146454	0.0242%	98.39%	94.92%	46.74%	56799360(96.14%)	9575104(16.21%)	47224256(79.94%)
control2	54777966	8271472866	54371376	8098063047	0.0249%	98.13%	94.18%	46.22%	52436384(96.44%)	9137337(16.81%)	43299047(79.64%)
control3	45368796	6850688196	45045744	6770033514	0.0252%	98.09%	93.85%	43.75%	43725172(97.07%)	11618492(25.79%)	32106680(71.28%)
control4	44115160	6661389160	43730746	6533767622	0.0249%	98.15%	94.14%	45.23%	42164235(96.42%)	9284394(21.23%)	32879841(75.19%)
control5	43297398	6537907098	42775714	6355114264	0.0251%	98.07%	94.02%	43.75%	41355487(96.68%)	11347116(26.53%)	30008371(70.15%)
model1	42043516	6348570916	41665882	6225269280	0.0250%	98.12%	94.11%	46.40%	40086925(96.21%)	7456870(17.9%)	32630055(78.31%)
model2	43312546	6540194446	42899356	6433144695	0.0249%	98.12%	94.14%	46.78%	41407870(96.52%)	6624801(15.44%)	34783069(81.08%)
model3	43523990	6572122490	43135586	6450833408	0.0247%	98.21%	94.39%	46.46%	41663748(96.59%)	6606824(15.32%)	35056924(81.27%)
model4	44621630	6737866130	44271840	6612241367	0.0247%	98.23%	94.42%	47.68%	42443355(95.87%)	6130185(13.85%)	36313170(82.02%)
model5	57746592	8719735392	57089560	8503966906	0.0245%	98.31%	94.62%	45.15%	55349737(96.95%)	12584191(22.04%)	42765546(74.91%)
EGCG1	49010972	7400656772	48531360	7195280082	0.0250%	98.10%	94.13%	45.87%	46908954(96.66%)	9576782(19.73%)	37332172(76.92%)
EGCG2	61732952	9321675752	61124798	9087853052	0.0244%	98.34%	94.77%	47.21%	58856198(96.29%)	9367821(15.33%)	49488377(80.96%)
EGCG3	51117794	7718786894	50726348	7573643391	0.0245%	98.27%	94.56%	46.22%	48986240(96.57%)	8754411(17.26%)	40231829(79.31%)
EGCG4	46541390	7027749890	46267594	6897705613	0.0247%	98.20%	94.36%	48.69%	44080092(95.27%)	5232043(11.31%)	38848049(83.96%)
EGCG5	46060890	6955194390	45768420	6874039576	0.0245%	98.30%	94.58%	46.88%	44334339(96.87%)	6711396(14.66%)	37622943(82.2%)