Electronic Supplementary Material (ESI) for Food & Function.

Circulating (poly)phenol metabolites in the brain: unveiling in vitro and in vivo blood-brain barrier transport

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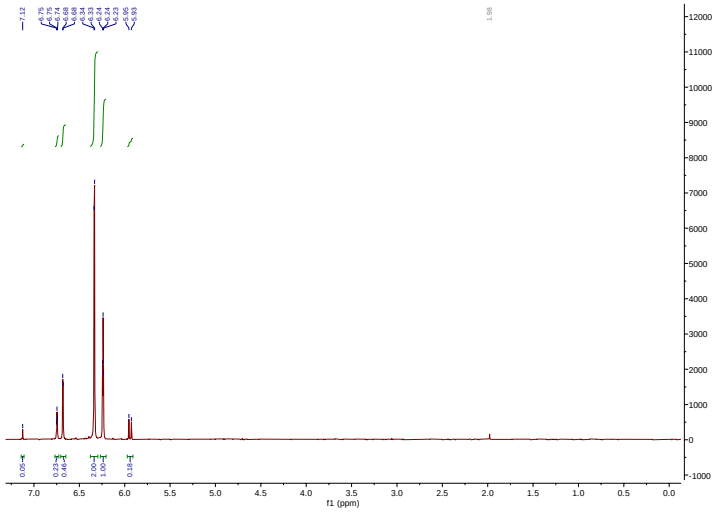
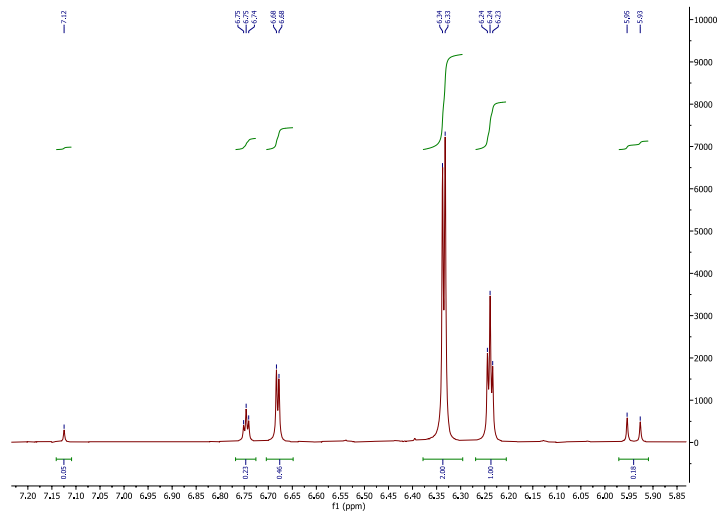
SUPPLEMENTARY MATERIAL





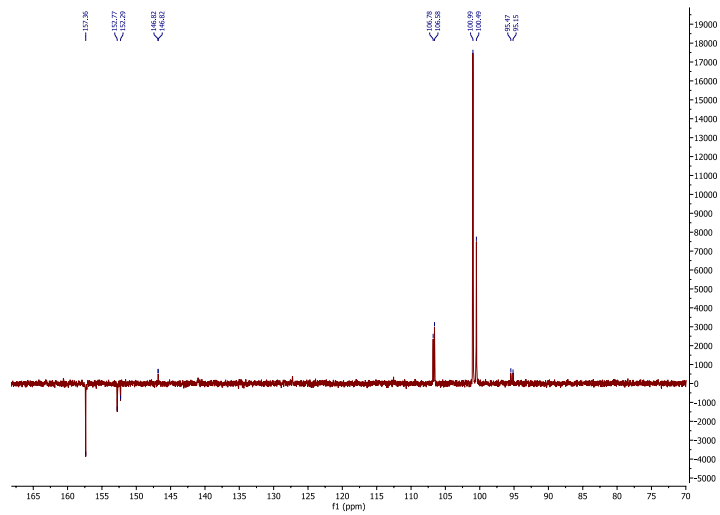


Fig. S1. 400MHz NMR spectra of phloroglucinol-*O*-sulfate (**A**) ^{1}H proton (**B**) ^{13}C carbon spectra

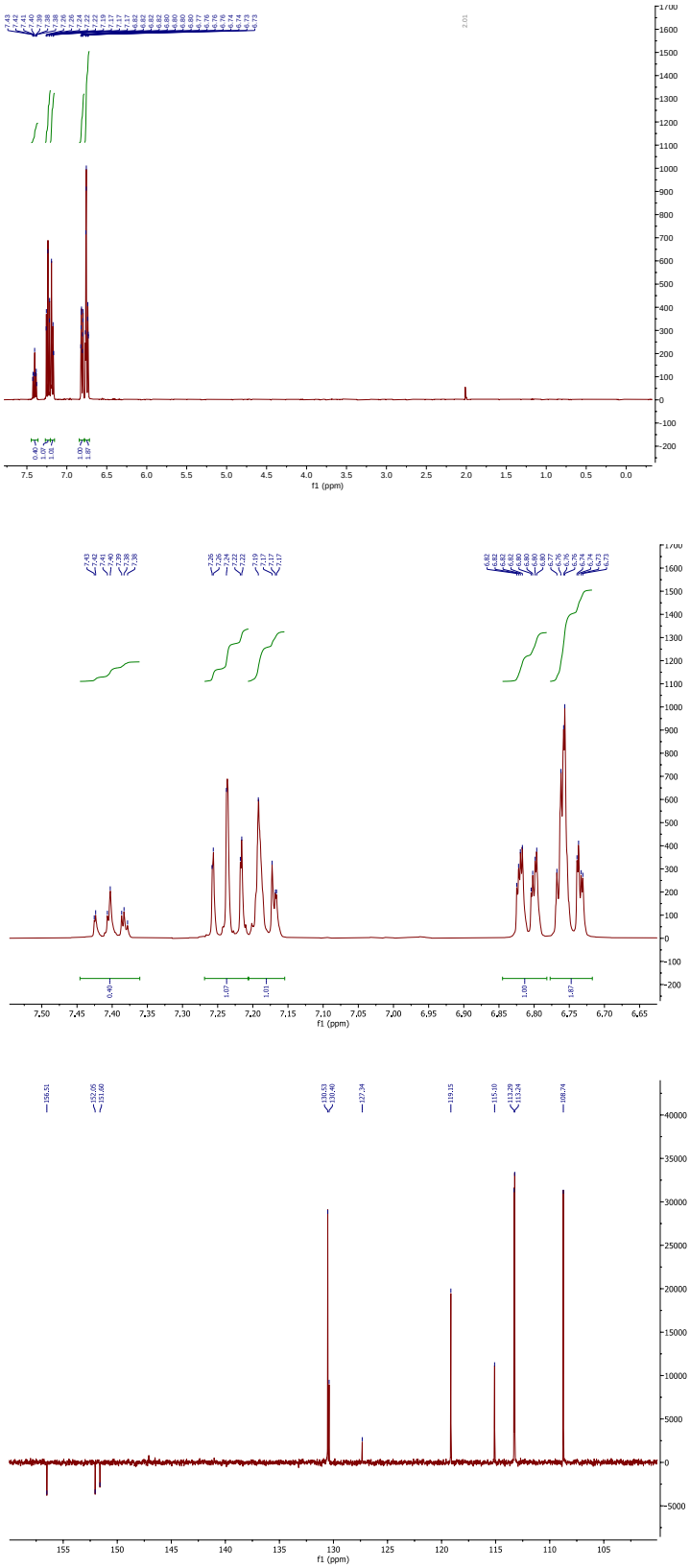


Fig. S2. 400MHz NMR spectra of resorcinol-sulfate (A) ^{1}H proton (B) ^{13}C carbon spectra

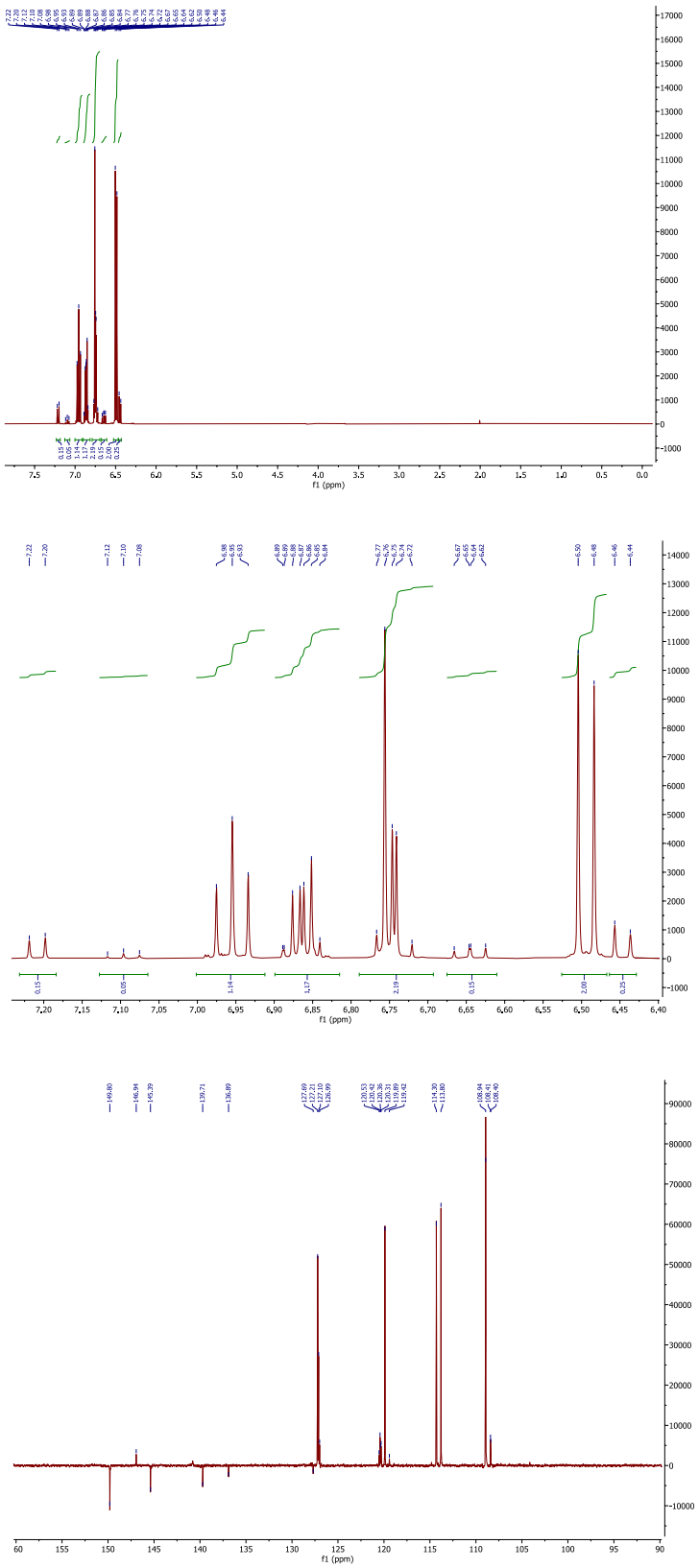


Fig. S3. 400MHz NMR spectra of pyrogallol-*O*-sulfate (**A**) ^{1}H proton (**B**) ^{13}C carbon spectra

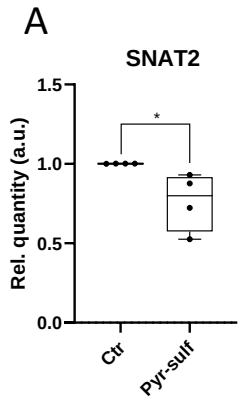


Fig. S4. HBMEC incubation with 5μM of Pyr-sulf for 2h significantly modulate the expression of *SNAT2* gene.

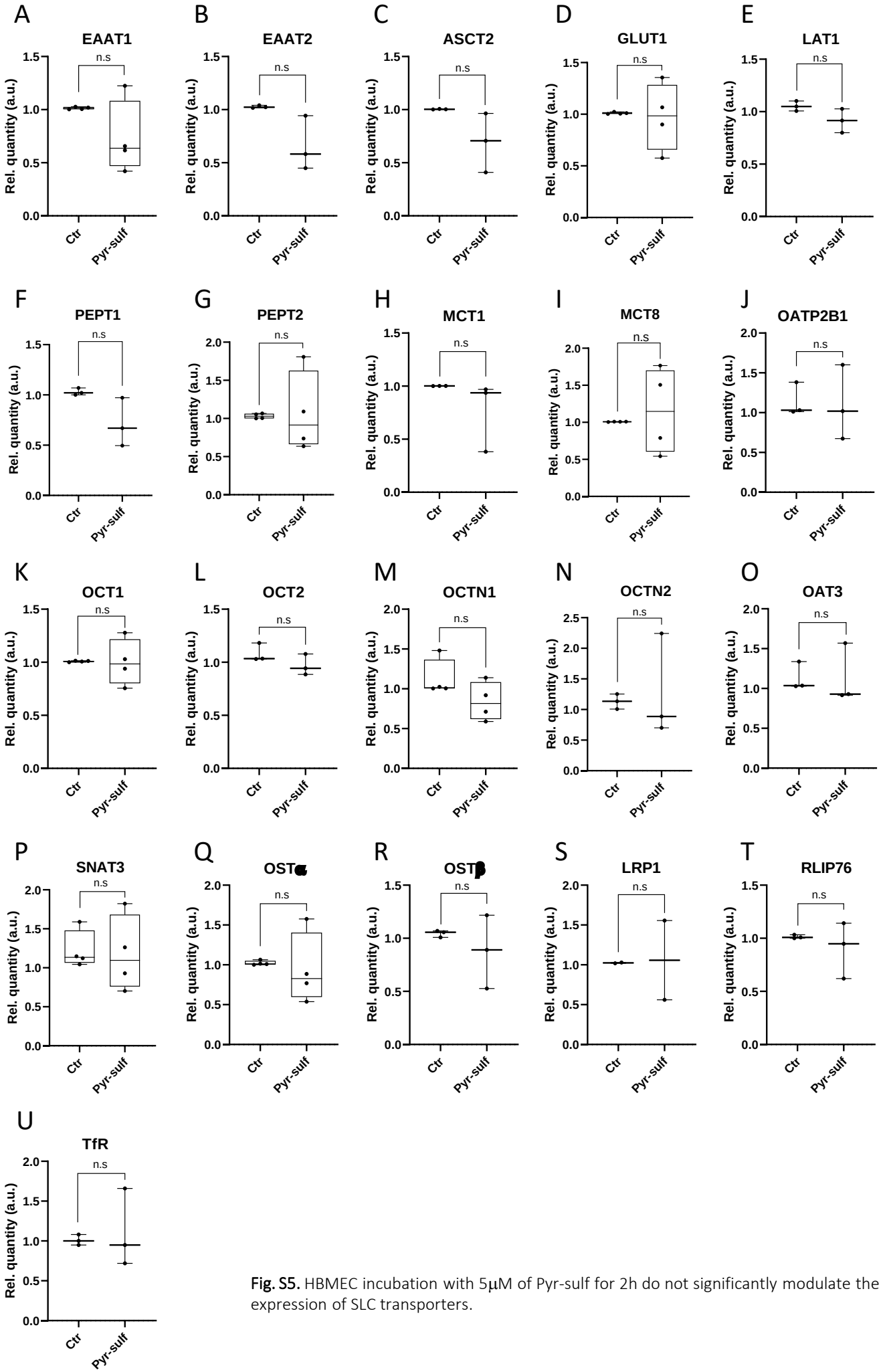


Fig. S5. HBMEC incubation with 5μM of Pyr-sulf for 2h do not significantly modulate the expression of SLC transporters.

Table S1. Primers list for RT-qPCR analysis of the different human transporters in HBMEC

Gene (transporter)	Forward (5′→3′)	Reverse (5′→3′)
LRP1	TTGGATTGACGCCAGGTCAG	CCAGTGTGTTTGTTCGCCAG
RALPBP1 (RLIP76)	GTAAACAGGCAGAGGCTGGG	AGGGACGAGGTCTTCTCTGT
SLC1A2 (EAAT2)	AGAGGGATCGCCTGCAAATC	CAGAGAGTGGTGGCAGAGGA
SLC1A3 (EAAT1)	ATTCCAGCAGGGAGTCCGTA	CCAGATGCCCCAGAGAAACAA
SLC1A4 (ASCT1)	CTCTCCTCGCCTTTCTCGCA	CTCTCCTCGCCTTTCTCGCA
SLC1A5 (ASCT2)	AGGCTTTCTCTGGCTGGTAAC	TCTTAGGTCCGGGAGGGTG
SLC2A1 (GLUT1)	CACTGTCGTGTCGCTGTTTG	AAAGATGGCCACGATGCTCA
SLC7A1 (CAT1)	CCGCCGGCTTGGATTCTGA	TTTGCACCCCATGTTGCTGT
SLC7A5 (LAT1)	CCGAGGAGGCAGCCAAG	TTGGACACATCACCCTTCCC
SLC16A1 (MCT1)	TGCGTGGGTACTGGAACAAG	TGCAGGTCAAATCCAAATATCGTT
SLC16A2 (MCT8)	CCTTCACCAGCTCCCTAAGC	ATGGCTGAAAGGCGAAGGAA
SLC22A1 (OCT1)	AATGCTGAGCTGTACCCCAC	CCCAACACCGCAAACAAAATG
SLC22A2 (OCT2)	AATCTCTACCCGCCTCCCTT	CACAGAGCTCGTGAACCAGT
SLC22A4 (OCTN1)	CAACGCCTTCAGCCTGTTTC	CTACGGGTGATGACAGCGTT
SLC22A5 (OCTN2)	TGTCCACCATTGTGACCGAG	GCAGGCTTCTTTCCCATCCT
SLC22A8 (OAT3)	TAGGACAGAGCAGGGACCTC	GAGAAGGTCATGGCACTGGG
SLC15A1 (PEPT1)	CTGTGGCGAAGTGGTCTTCT	GAATGTACTCGGCCCACTGT
SLC15A2 (PEPT2)	GCCTTCAGCAGCCTCTGTTA	ATGGCCAAGCACATACACCA
SLC38A2 (SNAT2)	CTCCTACCCCACCAAGCAAG	CCCACAATCGCATTGCTCAG
SLC38A3 (SNAT3)	AACCGCGAGGCCAGACATC	AGCAGCCCCTCTGAGTGTTT
SLC51A (OSTα)	TAAAGCTTGACCCCAGGTACA	ATGCTAGTGAGGGCAAGTTCC
SLC51B (OSTβ)	AGCATCCAGGCAAGCAGAAAA	GTGATCCTTGGCCTCATCCA
SLCO1A2 (OATP1A2)	AGCGTTCCAGGTATTTTTGTAATG	TCCCATGTTGCTCTTCAGGG
SLCO2B1 (OATP2B1)	CTGGAGCTCCCACCGTTATT	CTCACCCGCTGGCCCTATC
TfR	TCGTGTCCTCCCTTCATCCT	ACACAGAAGAACCTGCAGCC
β2-microglobulin (B2M)	GGCTATCCAGCGTACTCCAA	ACCAGTCCTTGCTGAAAGACAA
β-Actin	AACTACCTTCAACTCCATCA	GAGCAATGATCTTGATCTTCA