

Supplementary materials

Dose-Dependent Beneficial Effects of Tryptophan and Its Derived Metabolites on *Akkermansia* in vitro: A Preliminary Prospective Study

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Table S1. Operating parameters in MRM-mode.

Compound	Molecular formula	M (g/mol)	M+X+ (m/z)	Fragments (m/z)	DP (V)	EP (V)	CE (V)
5-hydroxytryptamine (5-HT)	C ₁₀ H ₁₂ N ₂ O	176.21	M + H ⁺	Q1 177.20 → 160.20	16	6	20
				Q2 177.20 → 132.00	16	8	30
				Q1 209.00 → 192.00	11	11	11
Kynurenine (Kyn)	C ₁₀ H ₁₂ N ₂ O ₃	208.21	M + H ⁺	Q2 209.00 → 146.00	29	29	29
				Q3 209.00 → 94.00	25	25	25
				Q1 188.20 →	35	12	21

				146.10			
3-Indoleacrylic acid	C ₁₁ H ₉ NO ₂	187.19	M + H ⁺	Q2 188.20 →	36	6	18
(IA)				160.10			
				Q3 188.20 →	16	9	18
				170.20			
				Q1 176.10 →	30	10	35
				130.00			
Indole acetate (IAA)	C ₁₀ H ₉ NO ₂	175.18	M + H ⁺	Q2 176.10 →	30	10	35
				103.10			
				Q3 176.10 →	30	10	35
				77.10			
				Q1 175.20 →	29	29	29
Indole-3-Acetamide	C ₁₀ H ₁₀ N ₂ O	174.20	M + H ⁺	130.20			
(IAM)				Q2 175.20 →	30	30	30
				105.00			
				Q1 146.10 →	24	24	24
Indole-3-	C ₉ H ₇ NO	145.16	M + H ⁺	118.00			
carboxaldehyde				Q2 146.10 →	35	35	35
(Icld)				118.00			
				Q1 206.20 →	33	33	33
Indole lactate (ILA)	C ₁₁ H ₁₁ NO ₃	205.21	M + H ⁺	170.10			
				Q2 206.20 →	33	33	33

Indole	C ₈ H ₇ N	117.15	M + H ⁺	118.30			
				Q1 118.00 →	9	10	30
				91.00			
				Q2 118.00 →	9	10	24
3-Indolepropionic acid (IPA)	C ₁₁ H ₁₁ NO ₂	189.21	M + H ⁺	63.00			
				Q1 190.20 →	29	12	26
				130.30			
				Q2 190.20 →	25	8	21
				172.30			

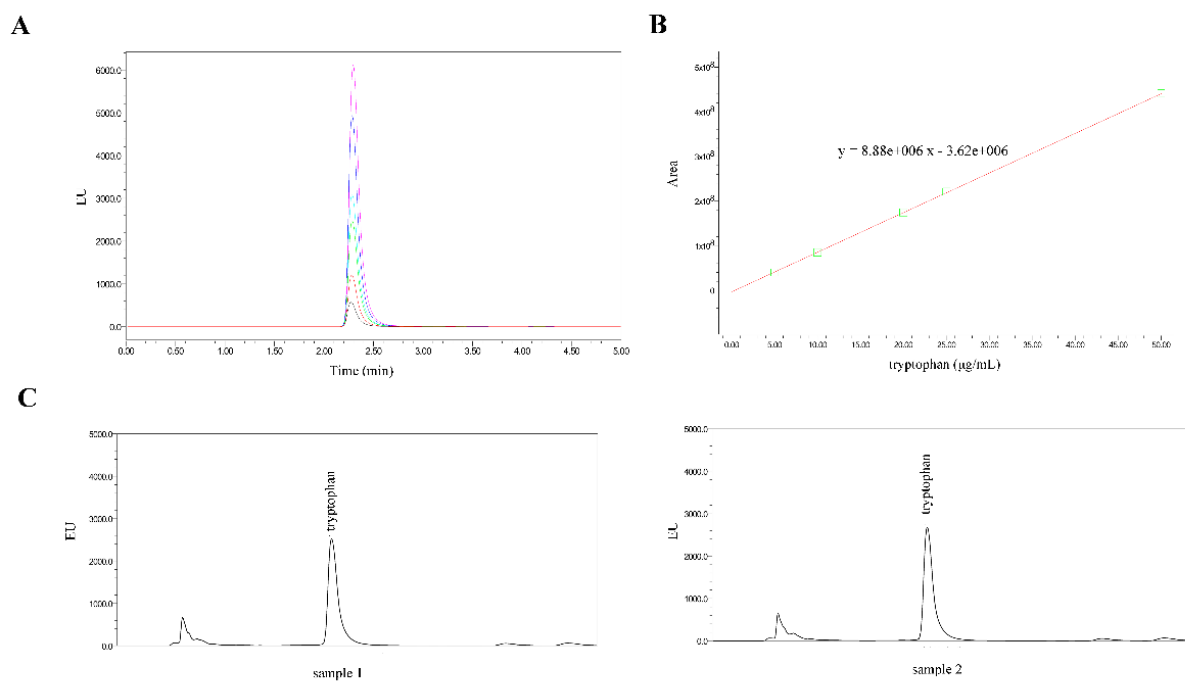


Figure S1. The analysis of the level of tryptophan in BHI medium. (A) Standards overlapping chromatogram; (B) Standard curve; (C) Analysis of tryptophan contents of BHI medium.

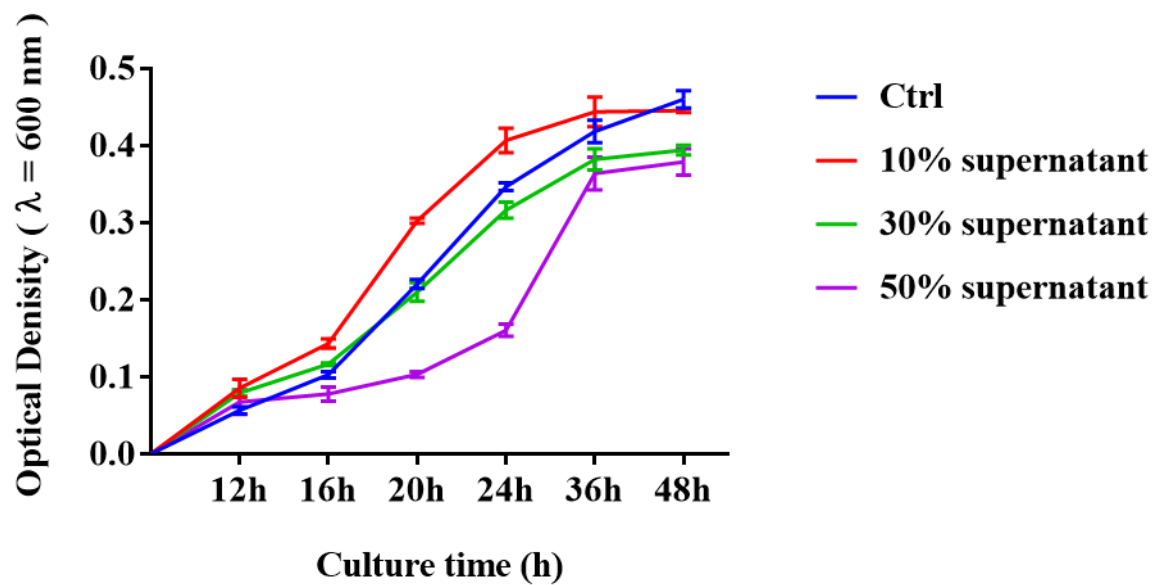


Figure S2. The OD₆₀₀ of *A. muciniphila* BAA-835^T cultured with supernatant of *A. muciniphila* BAA-835^T.