

Table S1. Primers used for TNF- α , IL-1 β , iNOS, and GAPDH

mRNA	Primer	Sequence (5'-3')	Size (bp)
TNF- α	Sense	TGTCTCAGCCTCTTCTCATTCC	152
	Antisense	TTTGTGAGTGTGAGGGTCTGG	
IL-1 β	Sense	GGGAAACAACAGTGGTCAGG	248
	Antisense	CCATCAGAGGCAAGGAGGA	
iNOS	Sense	ATCCGATTTAGAGTCTTGGTGAA	83
	Antisense	GTGGCTCTGACCCGTGAAG	
GAPDH	Sense	GGTTGTCTCCTGCGACTTCA	183
	Antisense	TGGTCCAGGGTTTCTTACTCC	

Table S2. Kinetic parameters for RRTP-FP adsorption onto the AB-8 resin

Dynamics Models	Kinetic Equations	Parameters
Pseudo-first-order model	$\ln(q_e - q_t) = -0.32637t + 0.36252$	$k_1 = 0.32637$ $R^2 = 0.96463$ $q_e = 1.436 \text{ mg/g}$
Pseudo-second-order model	$t/q_t = 0.39353t + 0.71441$	$k_2 = 0.39353$ $R^2 = 0.99833$ $q_e = 2.207 \text{ mg/g}$
Intra-particle diffusion model	$q_t = 0.98432t^{1/2} + 0.09272$	$k_p = 0.98432 \text{ mg} \cdot (\text{g} \cdot \text{h})^{-1/2}$ $R^2 = 0.97614$ $C = 0.09272 \text{ mg/g}$
	$q_t = 0.12189t^{1/2} + 1.82266$	$k_p = 0.12189 \text{ mg} \cdot (\text{g} \cdot \text{h})^{-1/2}$ $R^2 = 0.89198$ $C = 1.82266 \text{ mg/g}$
	$q_t = 0.10028t^{1/2} + 1.93999$	$k_p = 0.10028 \text{ mg} \cdot (\text{g} \cdot \text{h})^{-1/2}$ $R^2 = 0.9842$ $C = 1.93999 \text{ mg/g}$

Table S3. Kinetic parameters for RRTP-BP adsorption onto the AB-8 resin

Dynamics Models	Kinetic Equations	Parameters
Pseudo-first-order model	$\ln(q_e - q_t) = -0.30385t + 1.42905$	$k_1 = 0.30385$ $R^2 = 0.97412$ $q_e = 4.174 \text{ mg/g}$
Pseudo-second-order model	$t/q_t = 0.1295t + 0.14128$	$k_2 = 0.1295$ $R^2 = 0.9995$ $q_e = 7.078 \text{ mg/g}$
Intra-particle diffusion model	$q_t = 2.09645t^{1/2} + 1.86028$	$k_p = 2.09645 \text{ mg} \cdot (\text{g} \cdot \text{h})^{-1/2}$ $R^2 = 0.95771$ $C = 1.86028 \text{ mg/g}$
	$q_t = 0.59721t^{1/2} + 5.08271$	$k_p = 0.59721 \text{ mg} \cdot (\text{g} \cdot \text{h})^{-1/2}$ $R^2 = 0.97534$ $C = 5.08271 \text{ mg/g}$
	$q_t = 0.06217t^{1/2} + 6.89306$	$k_p = 0.06217 \text{ mg} \cdot (\text{g} \cdot \text{h})^{-1/2}$ $R^2 = 0.98113$ $C = 6.89306 \text{ mg/g}$

Table S4. Total phenolic content of RRTP-FP, RRTP-BP, P-RRTP-FP, and P-RRTP-BP *

Samples	Yield (%)	Total phenolic content (mg GAE/g E)
RRTP-FP	23.71±2.80	213.33±8.57
RRTP-BP	2.99±0.28	501.86±4.86
P-RRTP-FP	10.22±1.2	433.79±12.78
P-RRTP-BP	1.07±0.74	833.11±13.92

*RRTP: *Rosa roxburghii* Tratt pomace; RRTP-FP: free polyphenols extracted from RRTP; RRTP-BP: bound polyphenols extracted from RRTP; P-RRTP-FP: purified products of RRTP-FP; P-RRTP-BP: purified products of RRTP-BP. Data are expressed as mean ± standard deviation ($n = 3$).