

Table S1. Flavan-3-ol composition (%) of the seed extract employed in the study.

Non-galloylated						mDP 2.09
Monomers	Dimers	Trimers	Tetrames	Pentamers	Total	
8.64	64.66	13.29	1.10	0.29	87.98	
Galloylated						
Monomers	Dimers	Trimers	Tetrames	Pentamers	Total	
---	11.30	0.55	0.17	---	12.02	

mDP: medium degree of polymerization

Table S2. Molecular weight (MW), total amino acids content and percentages of hydrophobic, polar, acid, basic and aromatic residues of each HMW_{SP} according to UniProt database [43].

HMW _{SP}	MW	Total Amino acids	Hydrophobic residues	Polar residues	Acid residues	Basic residues	Aromatic residues
α-Amylase from human saliva	~58kDa	496	39.3%	24%	11.1%	12.7%	12.9%
Albumin from human serum	~66 kDa	585	36.6%	21.2%	16.8%	16.9%	8.5%
Mucin from bovine submaxillary glands	~58kDa	558	45.7%	37.8%	4.5%	7.3%	4.7%

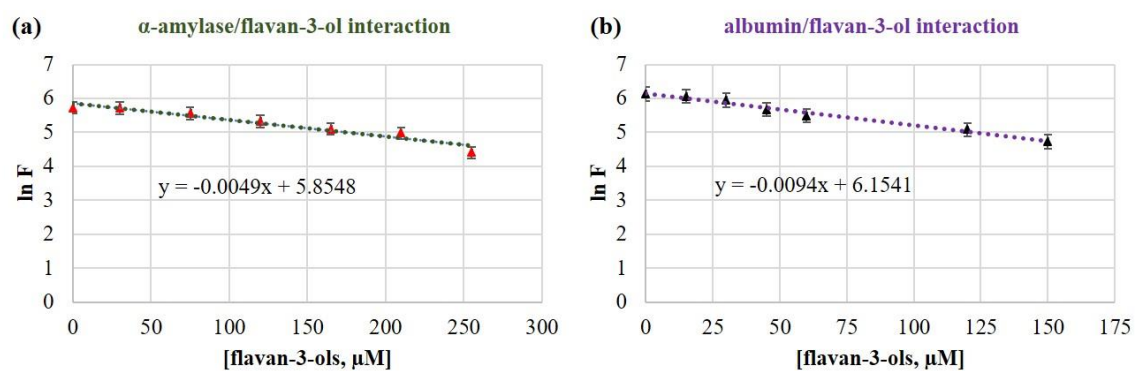


Figure S1. Modified Stern-Volmer plot describing tryptophan quenching of HMW_{SP} by increasing concentrations of seed flavan-3-ols: (a) α -amylase (3 μM); (b) albumin (3 μM). The λ_{em} maximum was recorded at ~350 nm.

Table S3. Stern-Volmer Quenching Constant (K_{sv}) and Bimolecular Quenching Constant (K_q) for the HMW_{sp}:flavan-3-ol interactions.

HMW _{sp}	τ_θ (s)	K_{sv} (M ⁻¹)	K_q (M ⁻¹ s ⁻¹)
α -amylase	2.97 x 10 ⁻⁹	4.90 x 10 ^{3*}	1.65 x 10 ^{12**}
albumin	6.38 x 10 ⁻⁹	9.40 x 10 ^{3*}	1.88 x 10 ^{12**}
mucin	3.68 x 10 ⁻⁹	3.33 x 10 ⁴	9.06 x 10 ¹²

*These values correspond to the Apparent Static Quenching Constant K_{app} (M⁻¹)

** These values correspond to the Apparent Bimolecular Quenching Constant K_q^{app} (M⁻¹ s⁻¹)