

Supplementary Table 5 Statistics of proteins' amino acid proportion

Type	Shapiro-Wilk test Protein without species	Shapiro-Wilk test Protein with species	F-test Protein without species /Protein with species	Mann-Whitney Test Protein without species /Protein with species	T-test Protein without species /Protein with species
A = Ala	0.023	0.000	0.634	0.736	
C = Cys	0.000	0.000	0.001	0.003	
D = Asp	0.001	0.511	0.318	0.604	
E = Glu	0.000	0.015	0.020	0.007	
F = Phe	0.000	0.018	0.357	0.342	
G = Gly	0.000	0.011	0.027	0.038	
H = His	0.000	0.064	0.018	0.039	
I = Ile	0.000	0.581	0.159	0.089	
K = Lys	0.000	0.000	0.005	0.000	
L = Leu	0.067	0.110	0.000	0.000	
M = Met	0.000	0.295	0.642	0.959	
N = Asn	0.000	0.047	0.734	0.852	
P = Pro	0.270	0.489	0.021	0.020	
Q = Gln	0.000	0.006	0.005	0.008	
R = Arg	0.000	0.001	0.286	0.136	
S = Ser	0.000	0.068	0.471	0.571	
T = Thr	0.005	0.001	0.420	0.417	
V = Val	0.000	0.000	0.146	0.290	
W = Trp	0.000	0.000	0.017	0.018	
Y = Tyr	0.000	0.000	0.786	0.419	
Acidic	0.000	0.027	0.167	0.053	
Aliphatic	0.005	0.142	0.744	0.594	
Aromatic	0.186	0.240	0.219	0.314	0.219
Basic	0.000	0.000	0.045	0.005	
Charged	0.000	0.024	0.036	0.004	
Non-polar	0.000	0.173	0.355	0.134	
Polar	0.000	0.168	0.347	0.125	
Small	0.002	0.092	0.807	0.993	
Tiny	0.140	0.424	0.404	0.323	0.404