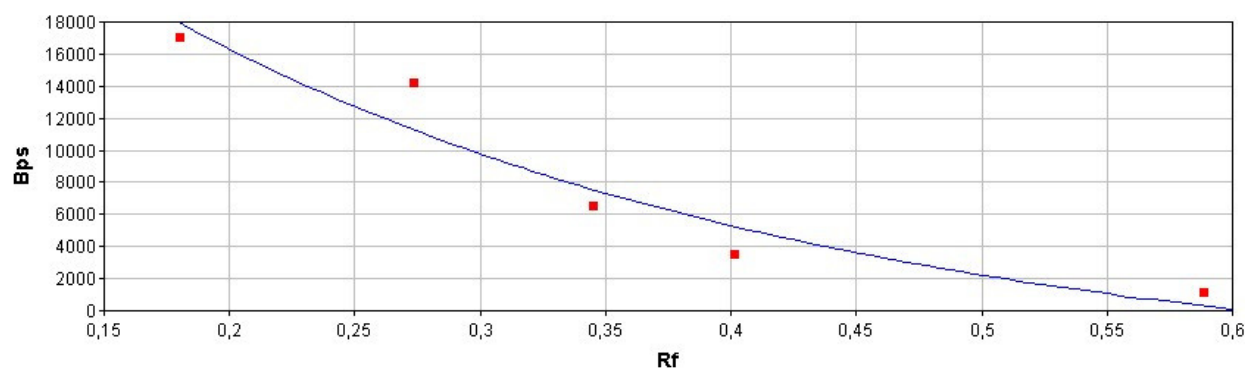


1 -1060 Da; 2 -3496 Da; 3 - 6500 Da; 4 - 14200 Da; 5 -17000 Da

Figure S1. The densitometric profile of low molecular weight standard markers (1.060-17.0kDa).



$$y = 44195,328236 * \exp(-3,755304 * x) - 4538,856131$$

$$R^2 = 0,926$$

Figure S2. Molecular weight calibration curve (based on the densitometric profile from Fig S1).

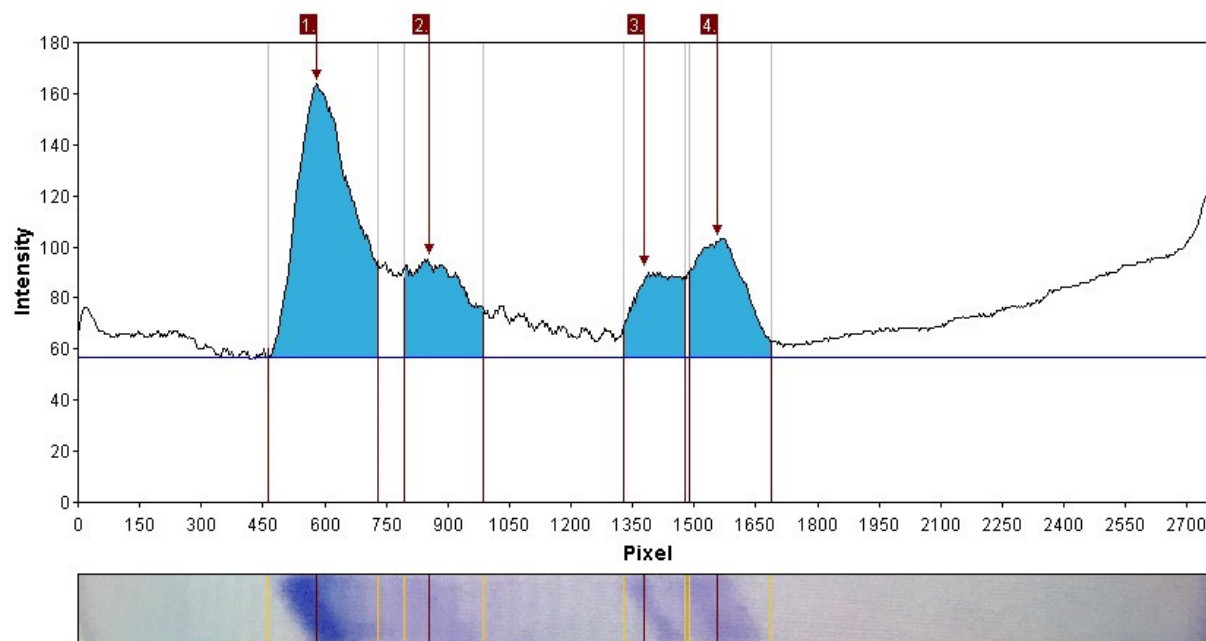


Figure S3. The densitometric profile of sample P1.

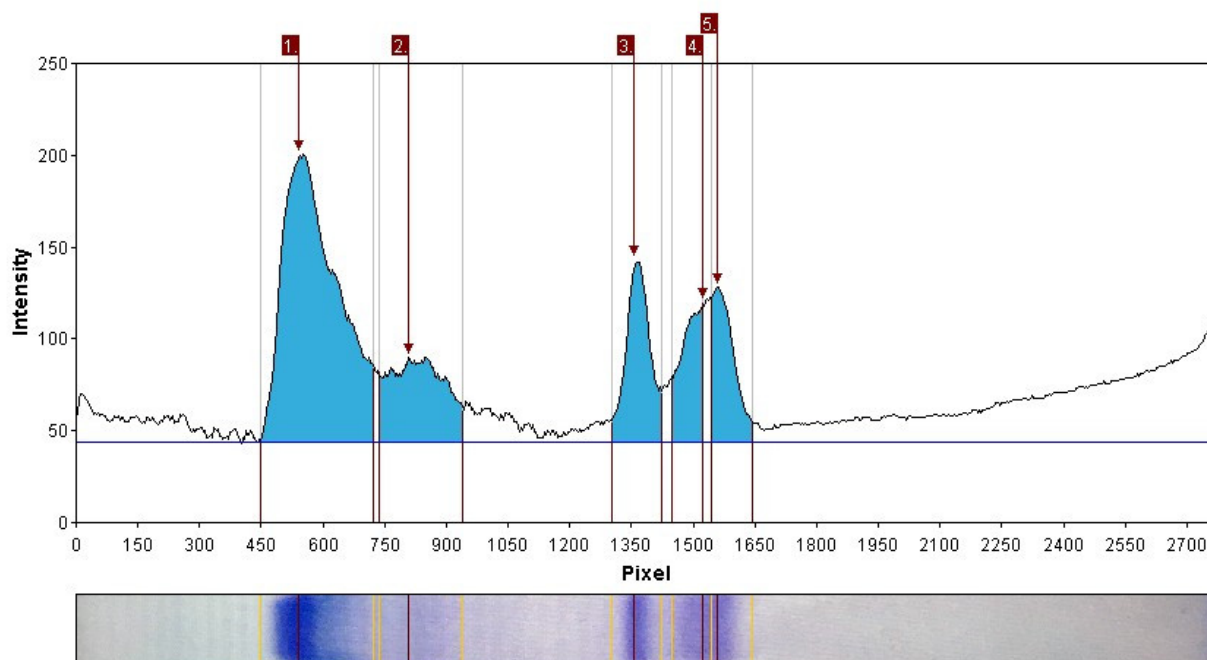


Figure S4. The densitometric profile of sample P2.

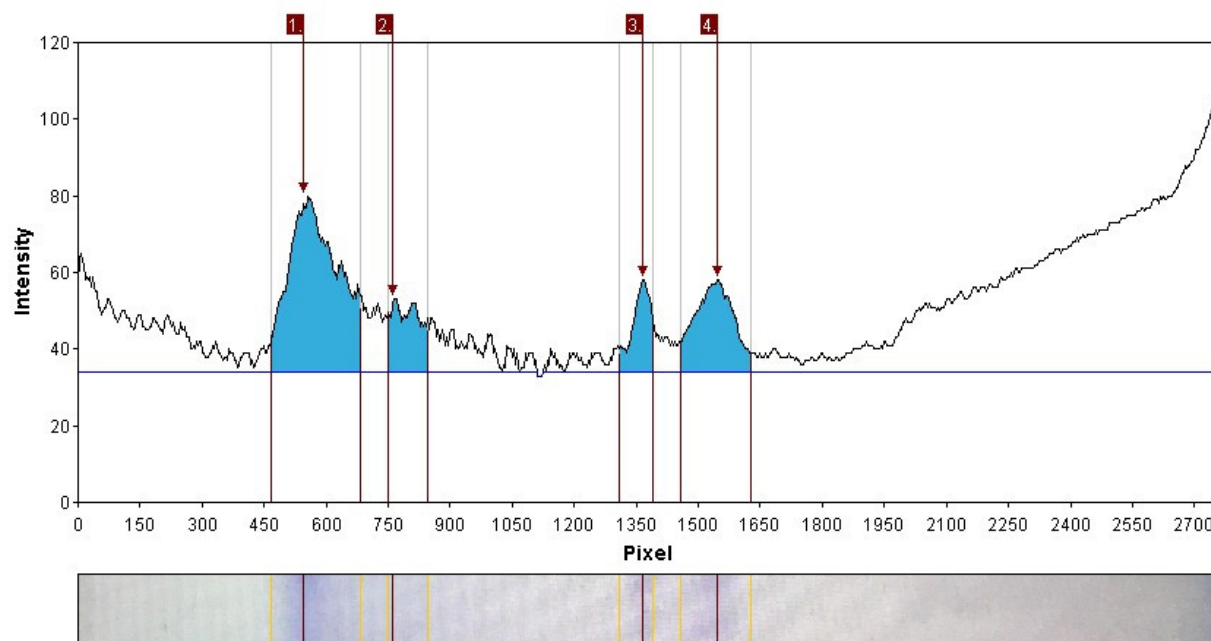


Figure S5. The densitometric profile of sample P3.

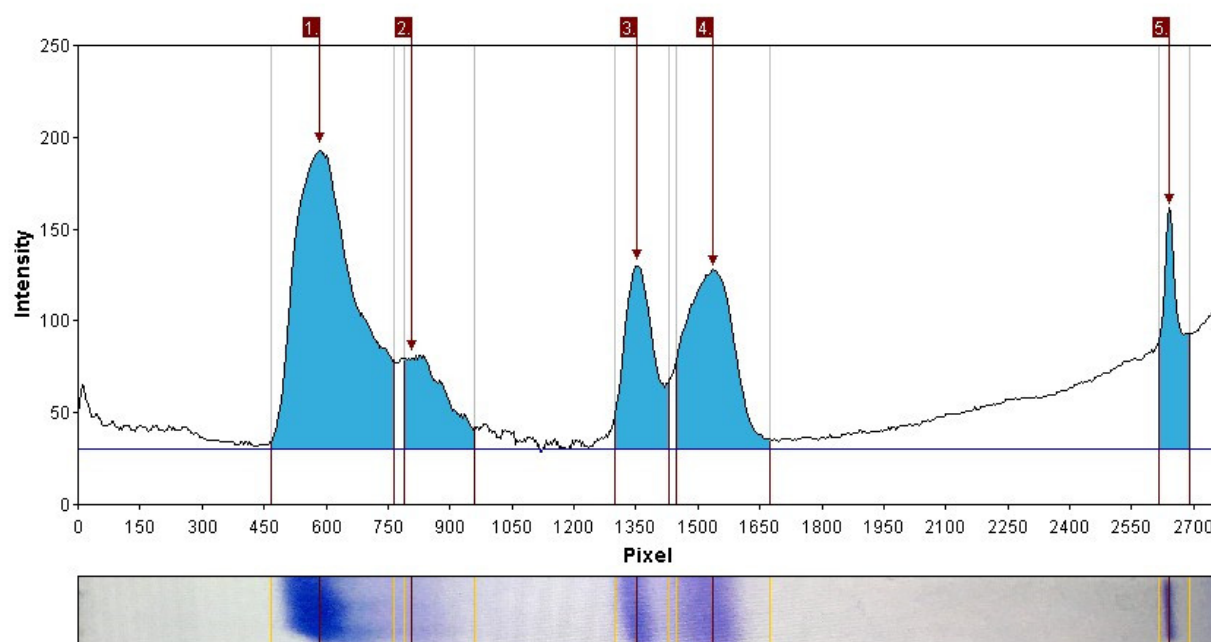


Figure S6. The densitometric profile of sample P4.

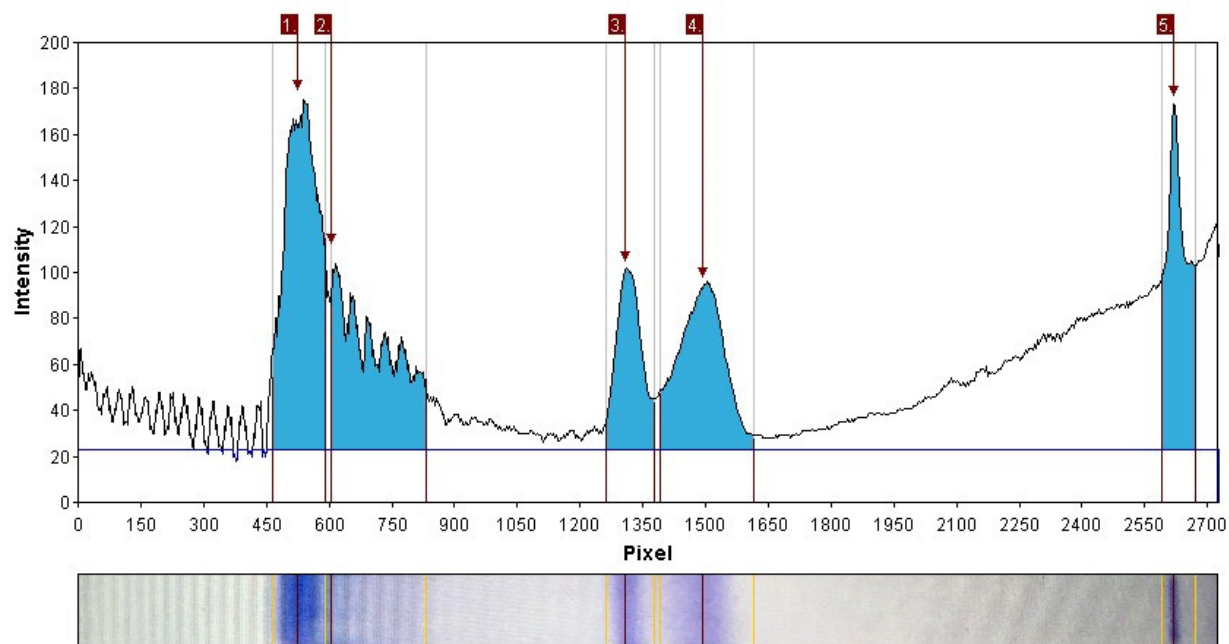


Figure S7. The densitometric profile of sample P5.

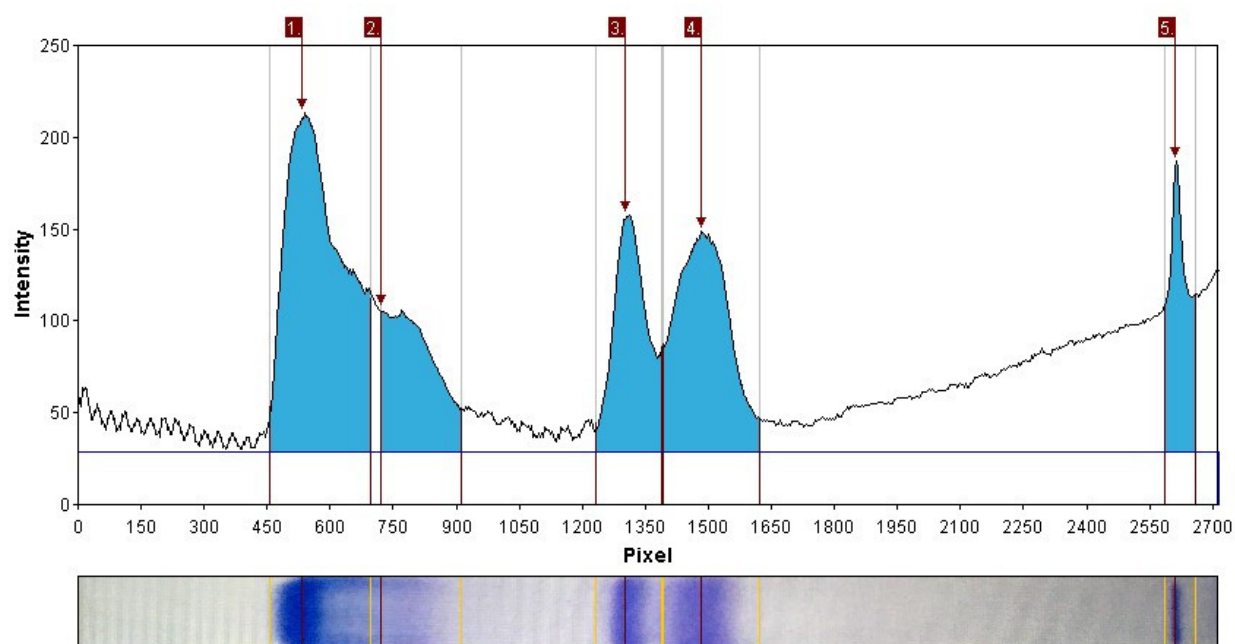


Figure S8. The densitometric profile of sample P6.

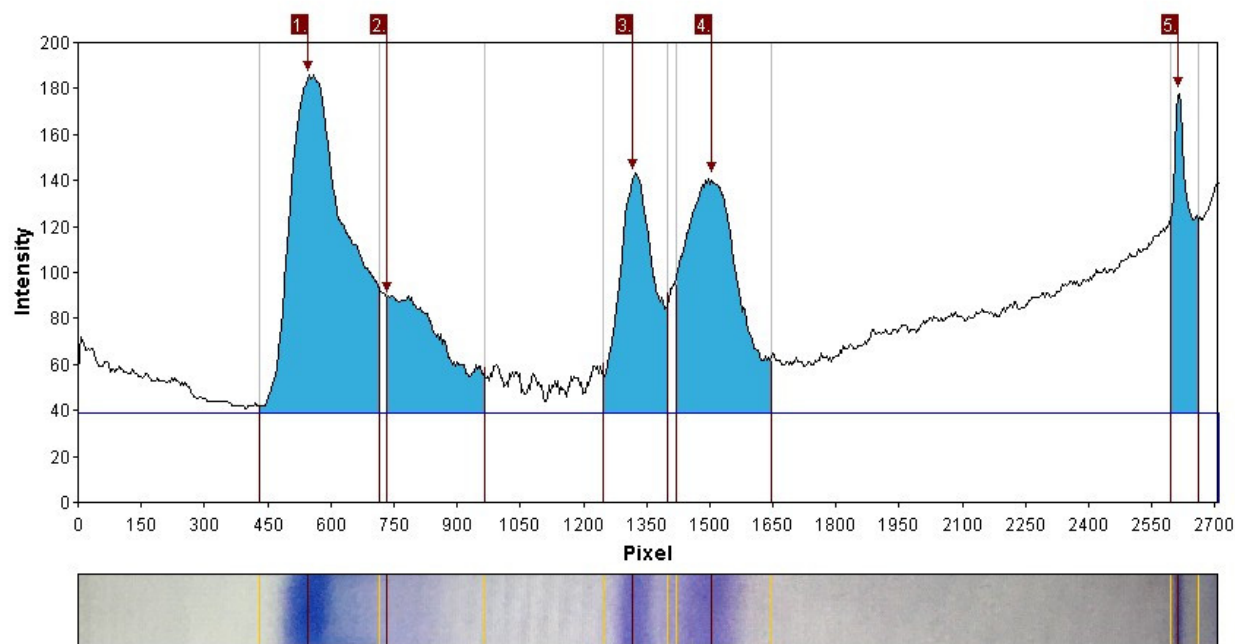


Figure S9. The densitometric profile of sample P7.

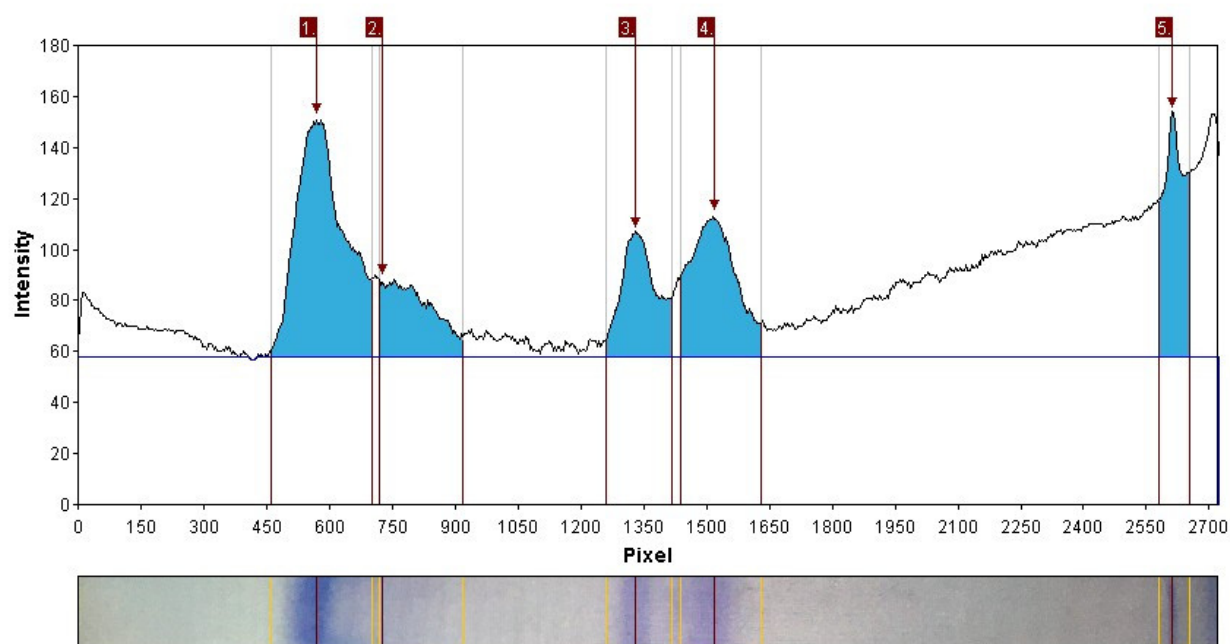


Figure S10. The densitometric profile of sample P8.

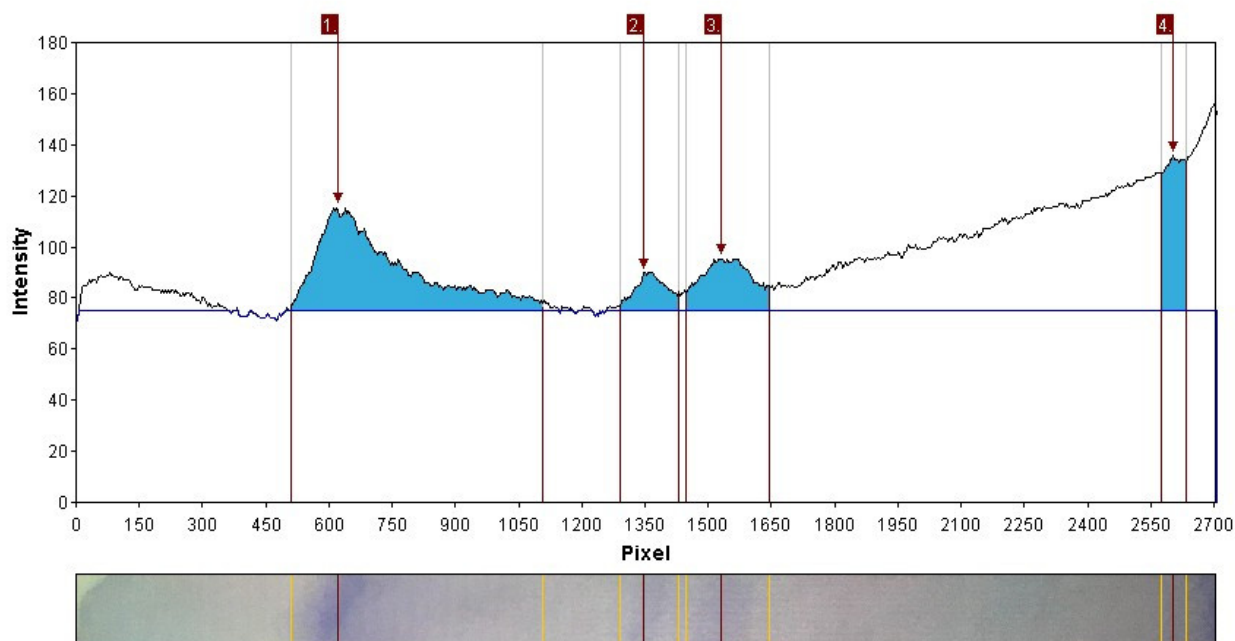


Figure S11. The densitometric profile of sample P9.

Table S1. Two-way ANOVA of the impact of E:S ratio and enzyme hydrolysis duration (EHD) on the DH.

Tests of Between-Subjects Effects								
Dependent Variable: DH								
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	3023.249 ^a	8	377.906	5663.774	0.000	1.000	45310.191	1.000
Intercept	35351.634	1	35351.634	529823.87	0.000	1.000	529823.873	1.000
E:S_ratio	1179.399	2	589.699	8837.973	0.000	0.999	17675.946	1.000
EHD	1816.401	2	908.201	13611.431	0.000	0.999	27222.862	1.000
ES_ratio * EHD	27.449	4	6.862	102.846	0.000	0.958	411.384	1.000
Error	1.201	18	0.067					
Total	38376.084	27						
Corrected Total	3024.450	26						

EHD – enzyme hydrolysis duration

a. R Squared = 1.000 (Adjusted R Squared = 0.999)

b. Computed using alpha = 0.05

Table S2. Two-way ANOVA of the impact of E:S ratio and enzyme hydrolysis duration (EHD) on the AChE inhibitory activity.

Tests of Between-Subjects Effects
Dependent Variable: AcheInh

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	3655.927 ^a	8	456.991	38.144	0.000	0.944	305.150	1.000
Intercept	767197.470	1	767197.470	64035.896	0.000	1.000	64035.896	1.000
ES_ratio	9500126	2	475.063	39.652	0.000	0.815	79.305	1.000
EHD	2489.308	2	1244.654	103.888	0.000	0.920	207.776	1.000
ES_ratio * EHD	216.491	4	54.123	4.517	0.011	0.501	18.070	0.864
Error	215.653	18	11.981					
Total	771069.050	27						
Corrected Total	3871.580	26						

EHD – enzyme hydrolysis duration

a. R Squared = 0.944 (Adjusted R Squared = 0.920)

b. Computed using alpha = 0.05

Table S3. Tukey HSD multiple comparisons on the AChE inh. between E:S ratio levels.

Multiple Comparisons						
Dependent Variable: AChE Inh.						
Tukey HSD						
(I) ES_ratio	(J) ES_ratio	Mean Difference			95% Confidence Interval	
		(I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
0.5	1	8.0667*	1.631	0.000	3.9023	12.2310
	2	14.5000*	1.631	0.000	10.3357	18.6643
1	0.5	-8.0667*	1.631	0.000	-12.2310	-3.9023
	2	6.4333*	1.631	0.003	2.2690	10.5977
2	0.5	-14.5000*	1.631	0.000	-18.6643	-10.3357
	1	-6.4333*	1.631	0.003	-10.5977	-2.2690

Based on observed means.

The error term is Mean Square (Error) = 11.981

* The mean difference is significant at the 0.05 level.

Table S4. Tukey HSD multiple comparisons on the AChE inh. between EHD.

Multiple Comparisons						
Dependent Variable: AChE Inh.						
Tukey HSD						
(I) EHD	(J) EHD	Mean Difference			95% Confidence Interval	
		(I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
30	60	22.1222*	1.63168	0.000	17.9579	26.2865
	120	17.9778*	1.63168	0.000	13.8135	22.1421
60	30	-22.1222*	1.63168	0.000	-26.2865	-17.9579
	120	-4.1444	1.63168	0.051	-8.3088	0.0199
120	30	-17.9778*	1.63168	0.000	-22.1421	-13.8135
	60	4.1444	1.63168	0.051	-0.0199	8.3088

Table S5. Two-way ANOVA of the impact of E:S ratio and enzyme hydrolysis duration (EHD) on AOA (FRAP).

Tests of Between-Subjects Effects								
Dependent Variable: FRAP								
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	2.549 ^a	8	0.319	1.666	0.166	0.388	13.327	0.563
Intercept	852.078	1	852.078	4454.218	0.000	0.995	4454.218	1.000
ES_ratio	1.980	2	0.990	5.175	0.015	0.330	10.351	0.768
EHD	0.276	2	0.138	0.722	0.044	0.064	1.444	0.156
ES_ratio * EHD	0.278	4	0.069	0.363	0.832	0.065	1.453	0.116
Error	4.017	21	0.191					
Total	984.461	30						
Corrected Total	6.567	29						

EHD – enzyme hydrolysis duration

a. R Squared = 0.388 (Adjusted R Squared = 0.155)

b. Computed using alpha = 0.05

Table S6. Two-way ANOVA of the impact of E:S ratio and enzyme hydrolysis duration (EHD) on AOA (CUPRAC).

Tests of Between-Subjects Effects								
Dependent Variable: CUPRAC								
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power
Corrected Model	0.212 ^a	8	0.026	2.626	0.036	0.500	21.006	0.797
Intercept	3.807	1	3.807	377.521	0.000	0.947	377.521	1.000
ES_ratio	0.043	2	0.021	2.116	0.013	0.168	4.233	0.385
EHD	0.038	2	0.019	1.863	0.047	0.151	3.726	0.343
ES_ratio * EHD	0.056	4	0.014	1.388	0.272	0.209	5.552	0.356
Error	0.212	21	0.010					
Total	4.924	30						
Corrected Total	0.424	29						

EHD – enzyme hydrolysis duration

a. R Squared = 0.500 (Adjusted R Squared = 0.310)

b. Computed using alpha = 0.05

Table S7. Two-way ANOVA of the impact of E:S ratio and enzyme hydrolysis duration (EHD) on AOA (DPPH).

Tests of Between-Subjects Effects								
Dependent Variable: DPPH								
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	0.106 ^a	8	0.013	0.644	0.732	0.197	5.154	0.222
Intercept	11.423	1	11.423	557.923	0.000	0.964	557.923	1.000
ES_ratio	0.053	2	0.027	1.304	0.029	0.110	2.608	0.251
EHD	0.027	2	0.013	0.654	0.530	0.059	1.308	0.145
ES_ratio * EHD	0.050	4	0.012	0.607	0.662	0.104	2.427	0.169
Error	0.430	21	0.020					

Total	13.869	30
Corrected Total	0.535	29

EHD – enzyme hydrolysis duration
a. R Squared = 0.197 (Adjusted R Squared = -0.109)
b. Computed using alpha = 0.05

Table S8. Two-way ANOVA of the impact of E:S ratio and enzyme hydrolysis duration (EHD) on AOA (ABTS).

Tests of Between-Subjects Effects								
Dependent Variable: ABTS								
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	0.221a	8	0.028	3.653	0.008	0.582	29.225	0.925
Intercept	23.615	1	23.615	3129.829	0.000	0.993	3129.829	1.000
ES_ratio	0.158	2	0.079	10.440	0.001	0.499	20.879	0.974
EHD	0.013	2	0.007	0.879	0.043	0.077	1.757	0.181
ES_ratio * EHD	0.001	4	0.000	0.023	0.999	0.004	.093	0.054
Error	0.158	21	0.008					
Total	27.151	30						
Corrected Total	0.379	29						

EHD – enzyme hydrolysis duration
a. R Squared = 0.582 (Adjusted R Squared = 0.423)
b. Computed using alpha = 0.05