

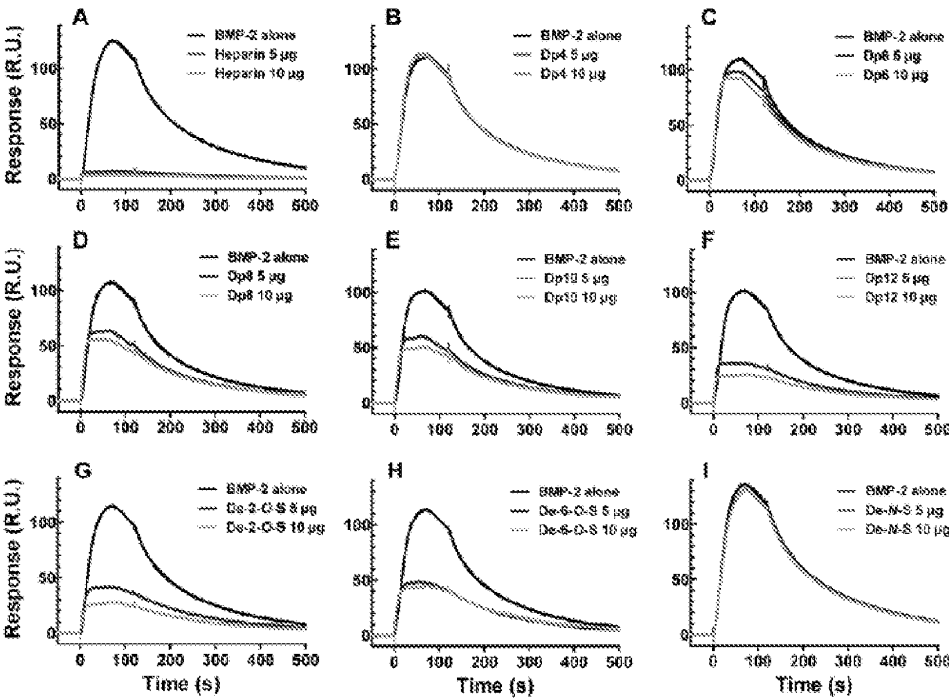


Figure 1

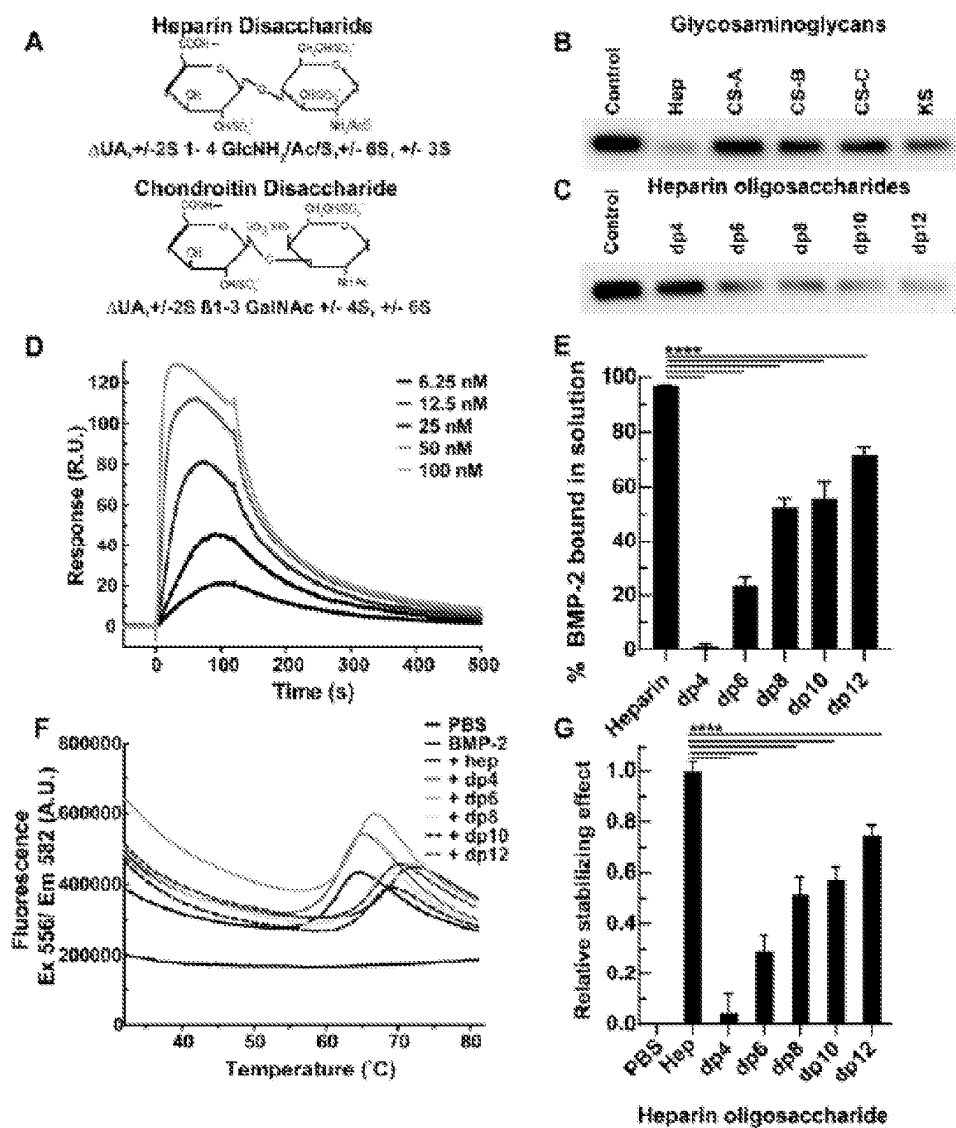


Figure 2

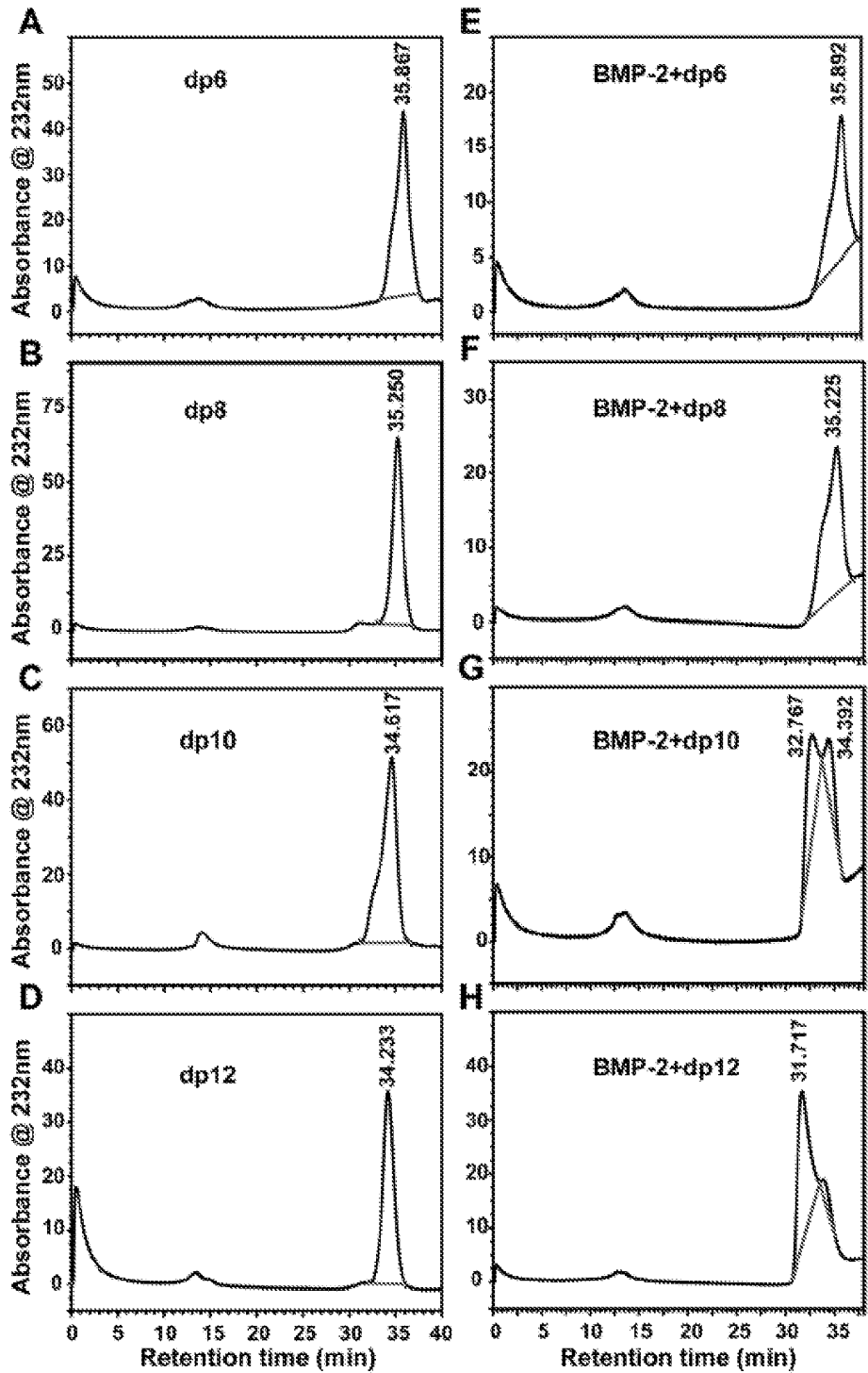


Figure 3

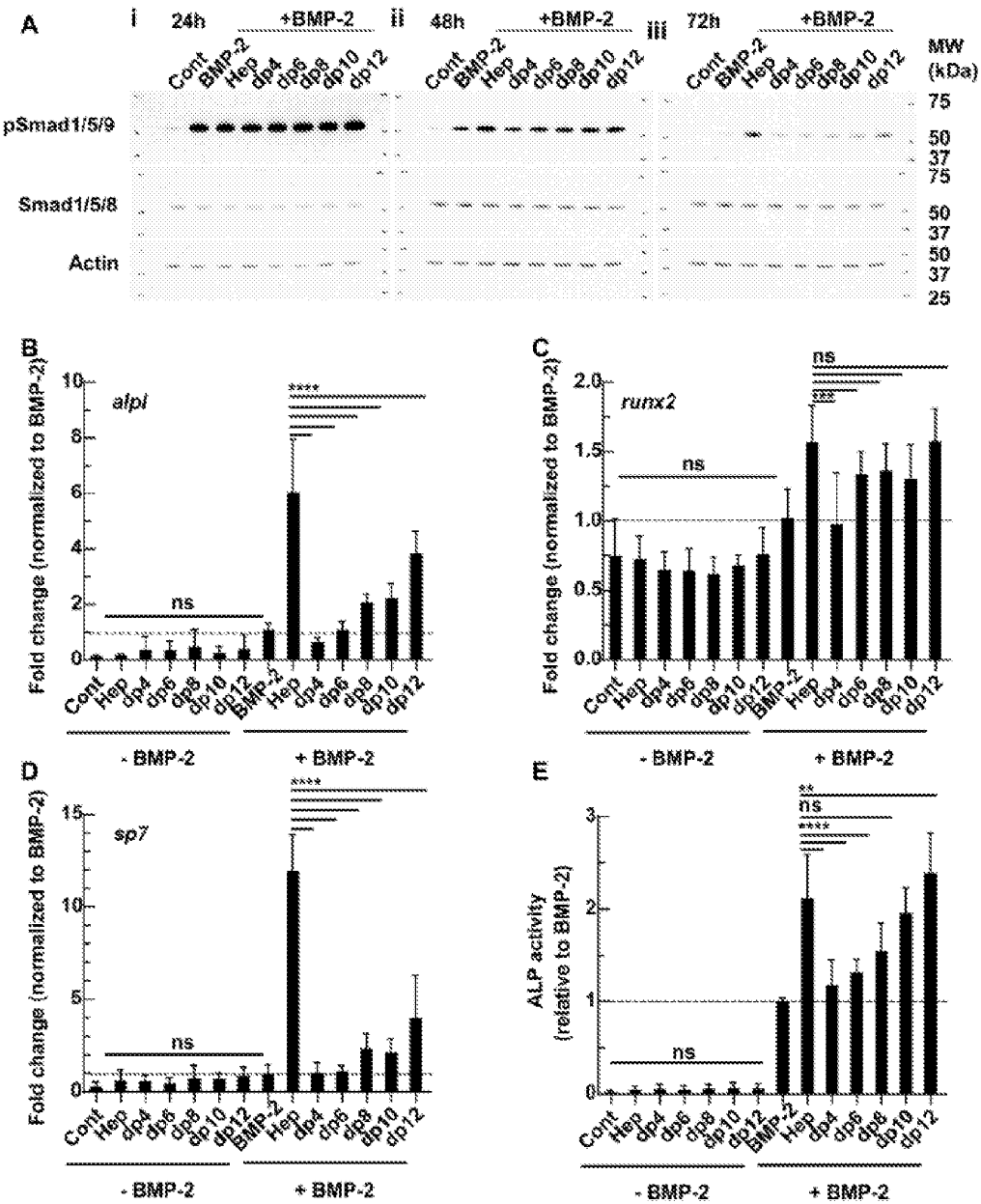


Figure 4

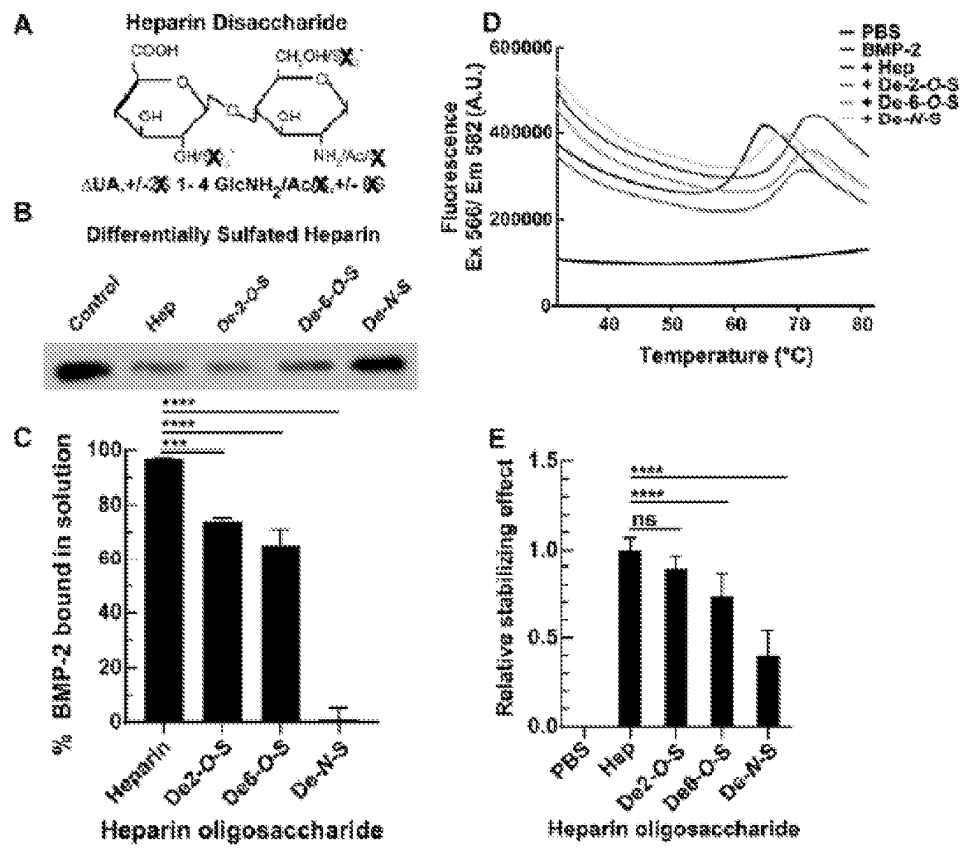


Figure 5

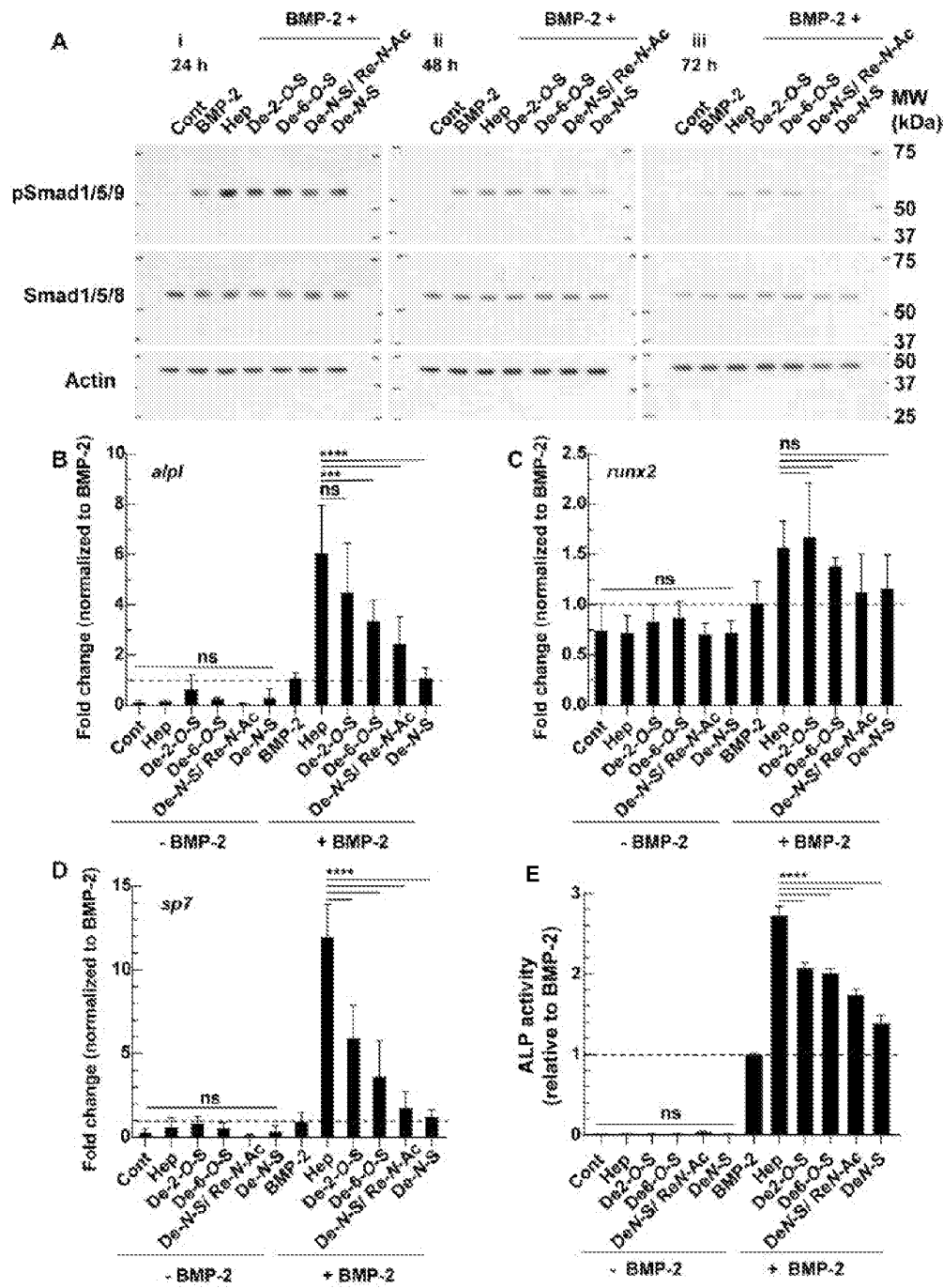


Figure 6

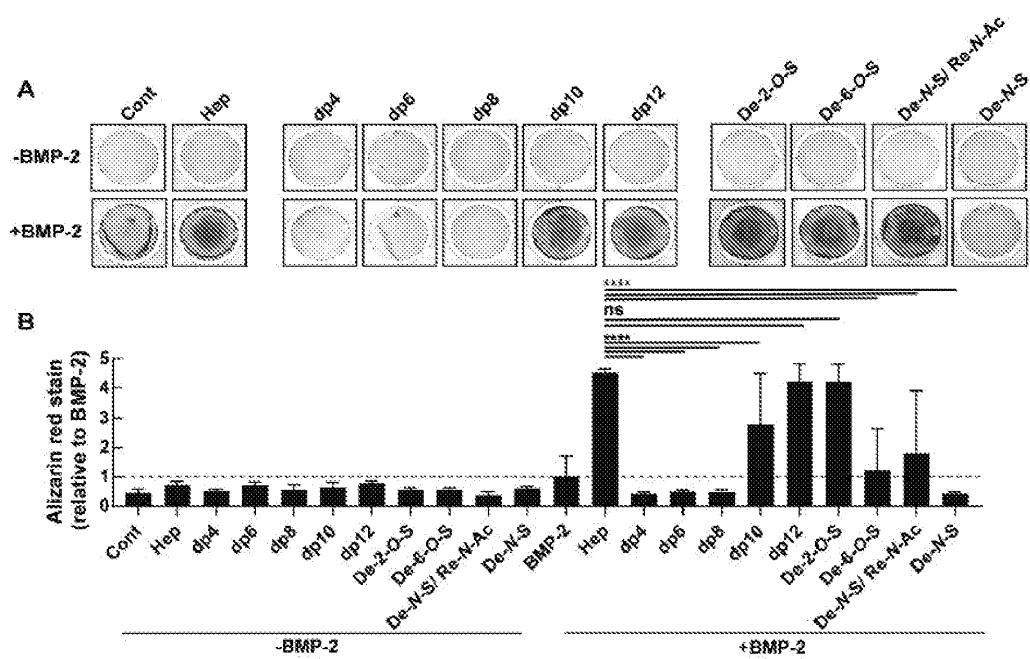


Figure 7

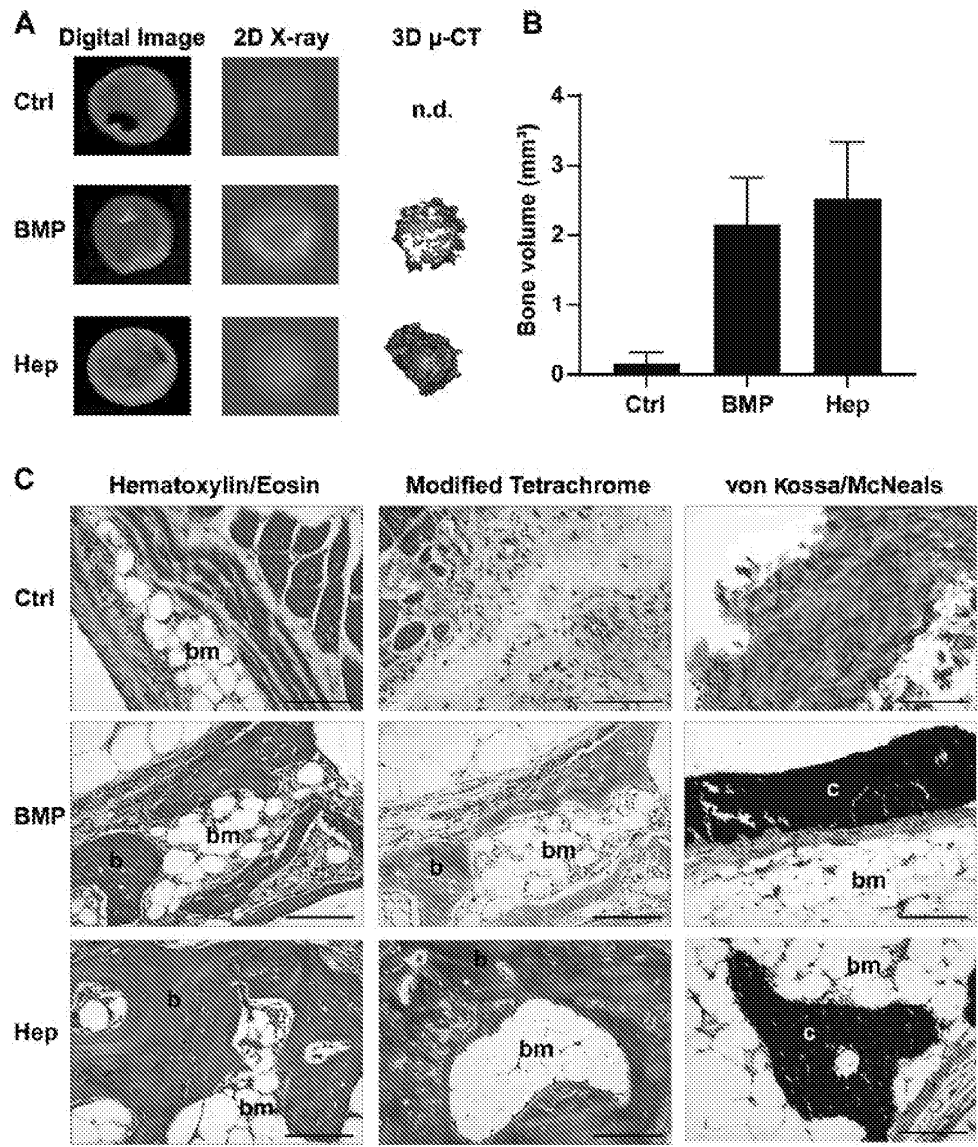


Figure 8

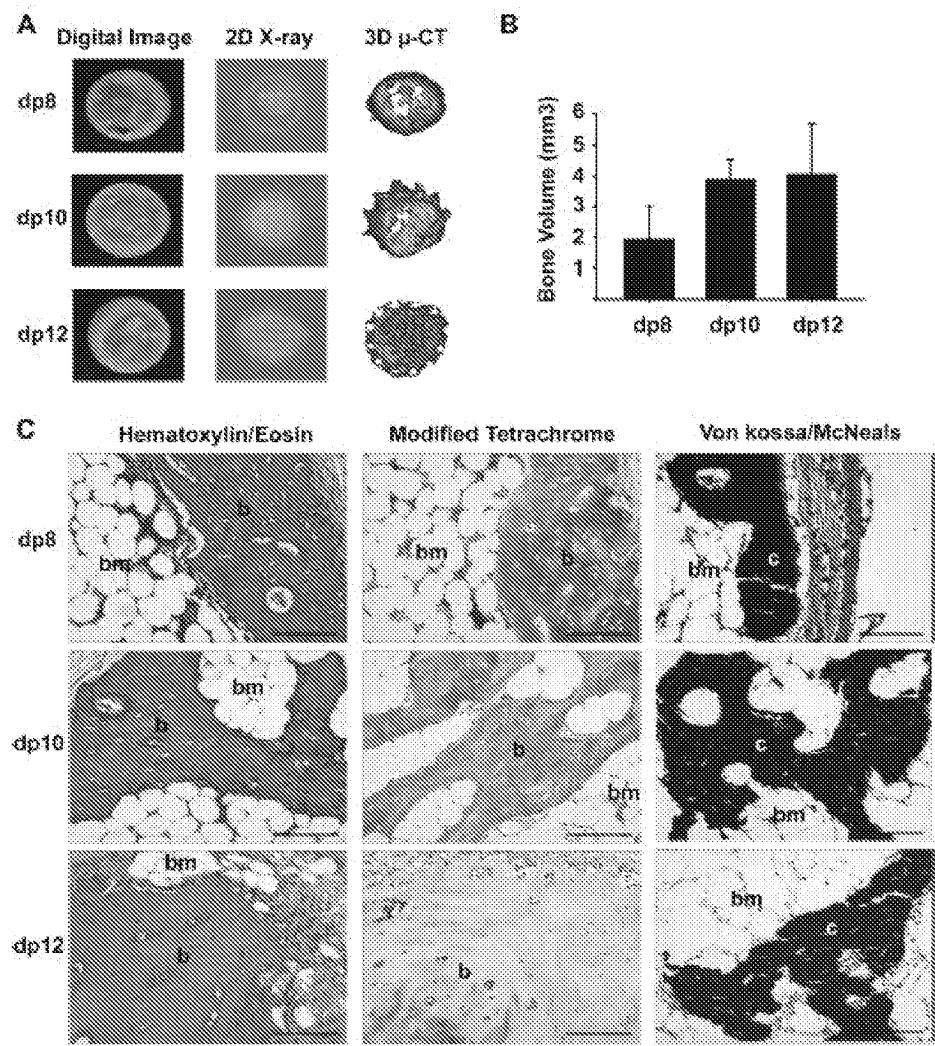


Figure 9

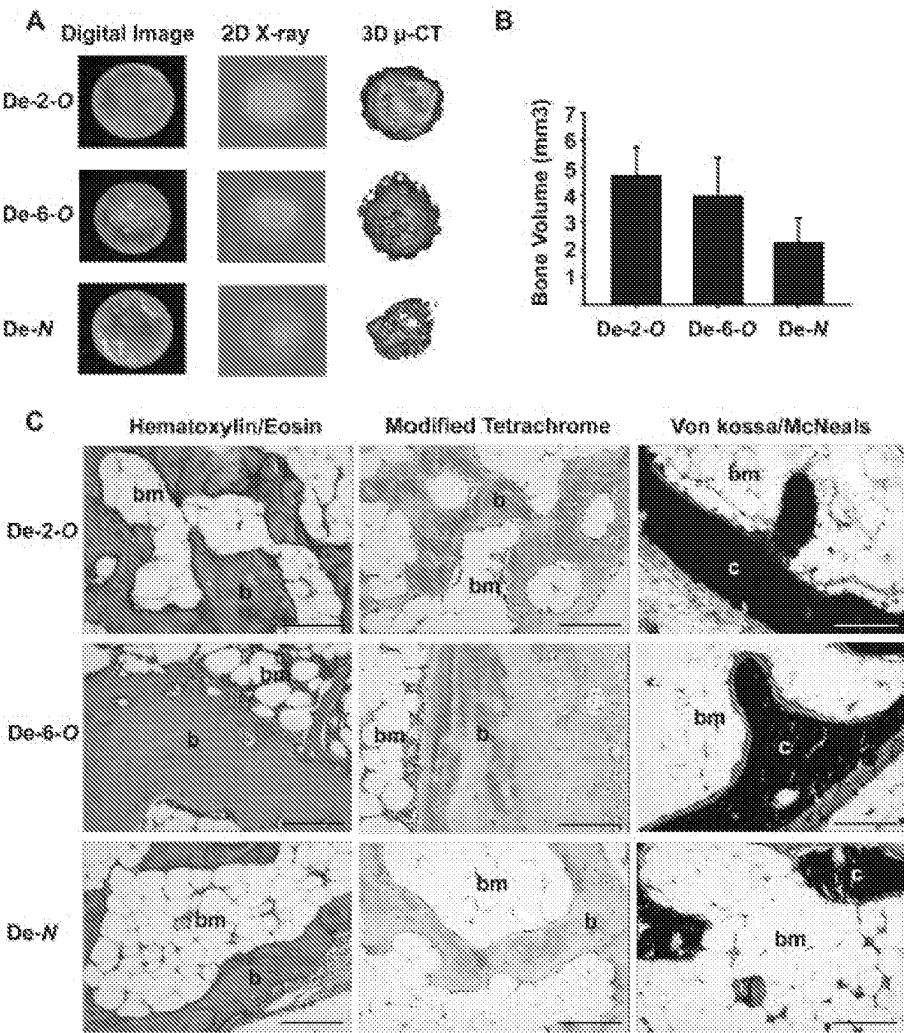


Figure 10

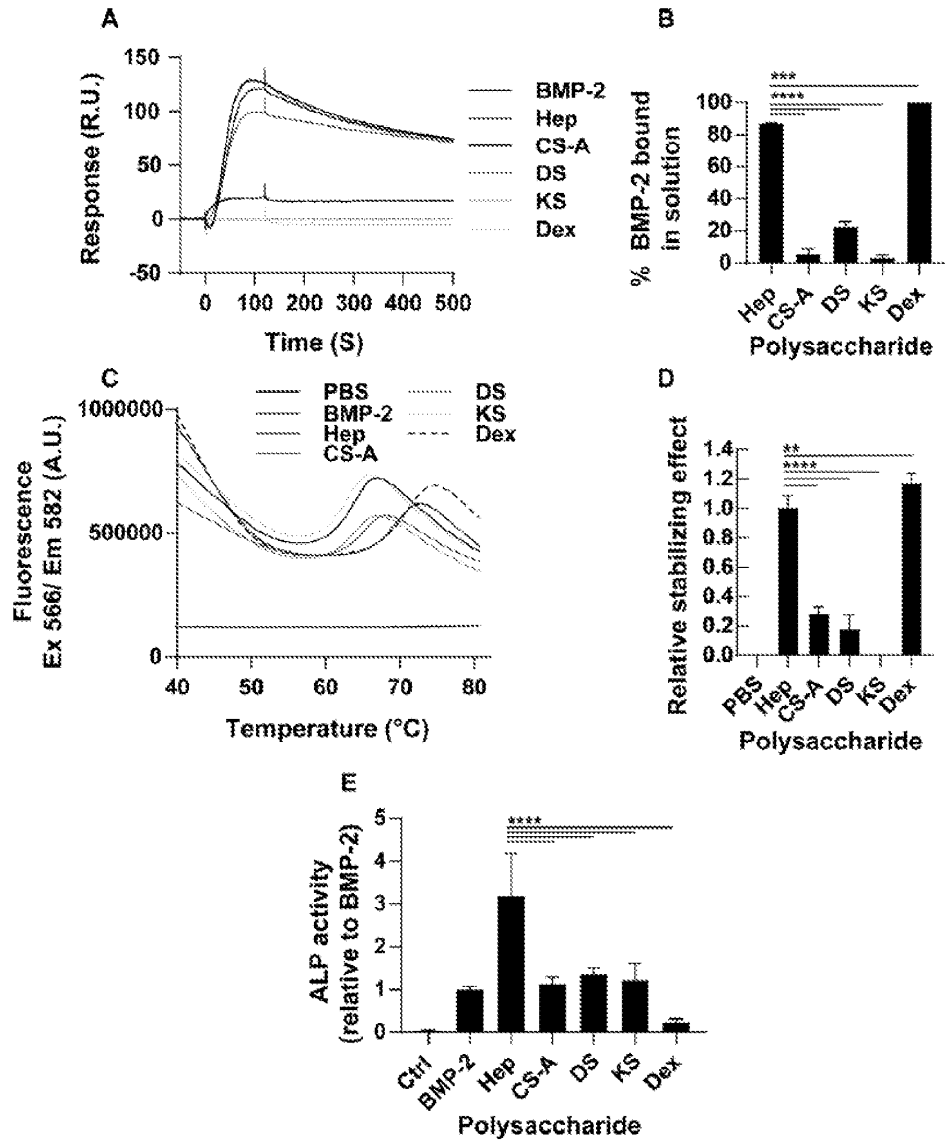


Figure 11

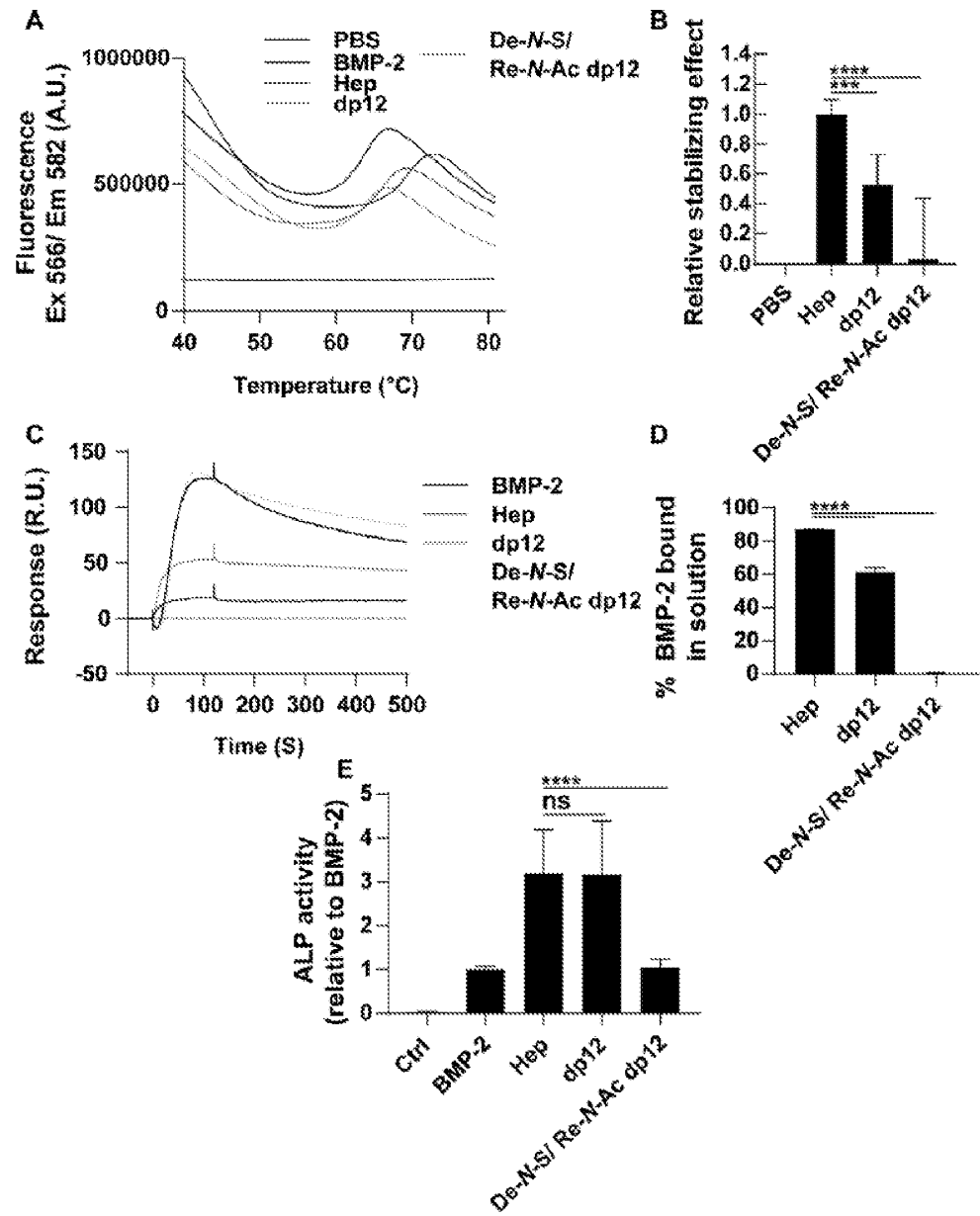


Figure 12

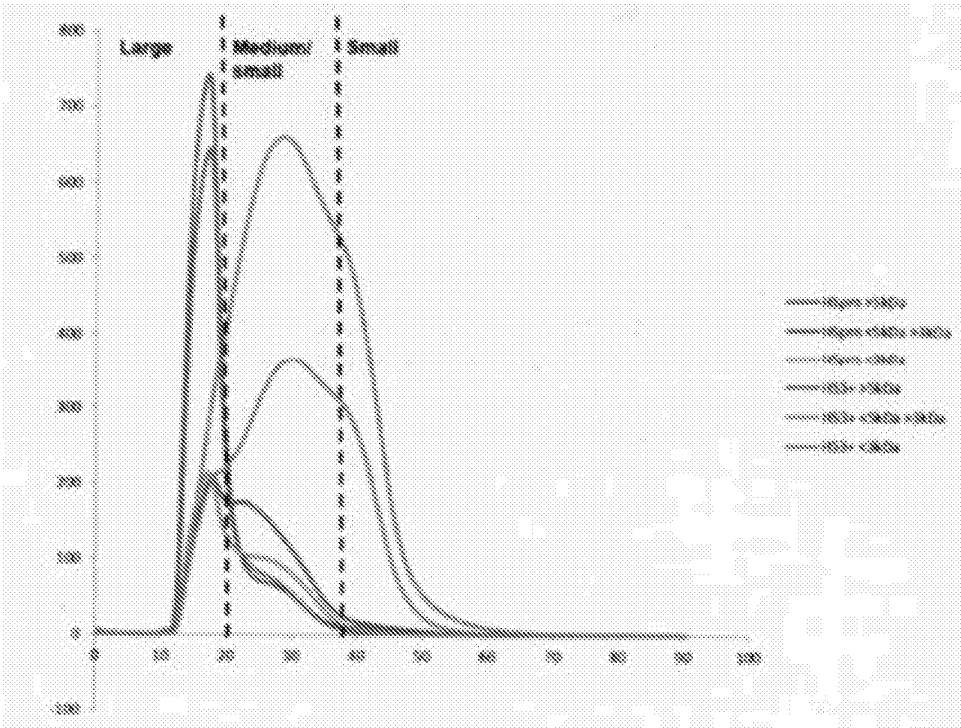


Figure 13

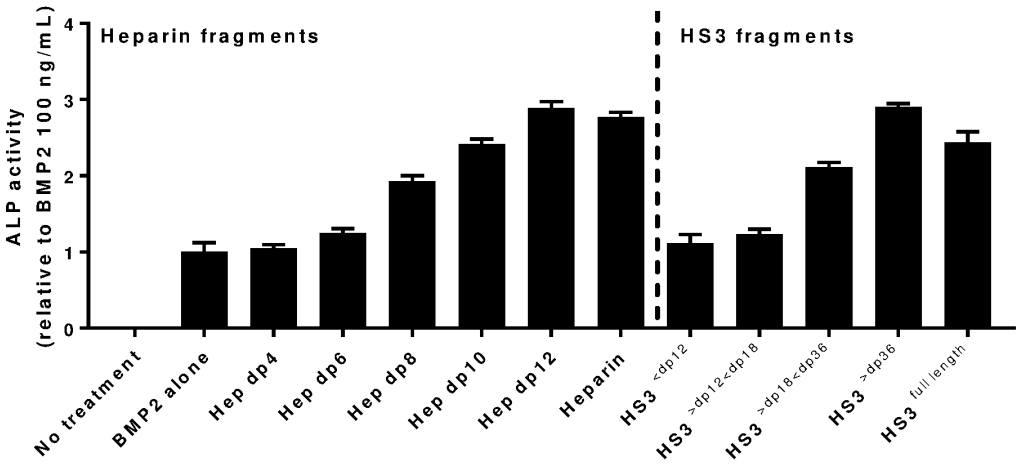


Figure 14

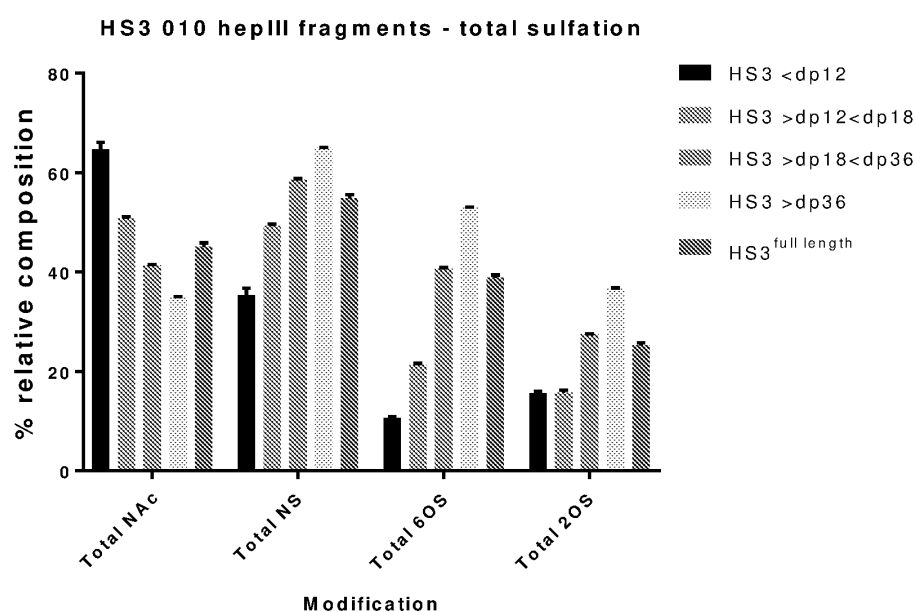


Figure 15

	HS3 <dp12	HS3 >dp12<dp18	HS3 >dp18<dp36	HS3 >dp36	HS3 full length
ΔUA-GlcNAc	44.23	32.13	21.54	17.40	31.27
ΔUA-GlcNS	29.62	33.75	25.51	18.41	22.05
ΔUA-GlcNAc,6S	10.58	15.13	16.48	14.48	11.79
ΔUA,2S-GlcNAc	9.87	3.49	3.34	3.12	2.07
ΔUA-GlcNS,6S	0.00	3.30	8.96	12.97	9.67
ΔUA,2S-GlcNS	5.69	9.28	8.91	8.16	5.75
ΔUA,2S-GlcNAc,6S	0.00	0.00	0.00	0.00	0.00
ΔUA,2S-GlcNS,6S	0.00	2.92	15.26	25.47	17.40

Figure 16

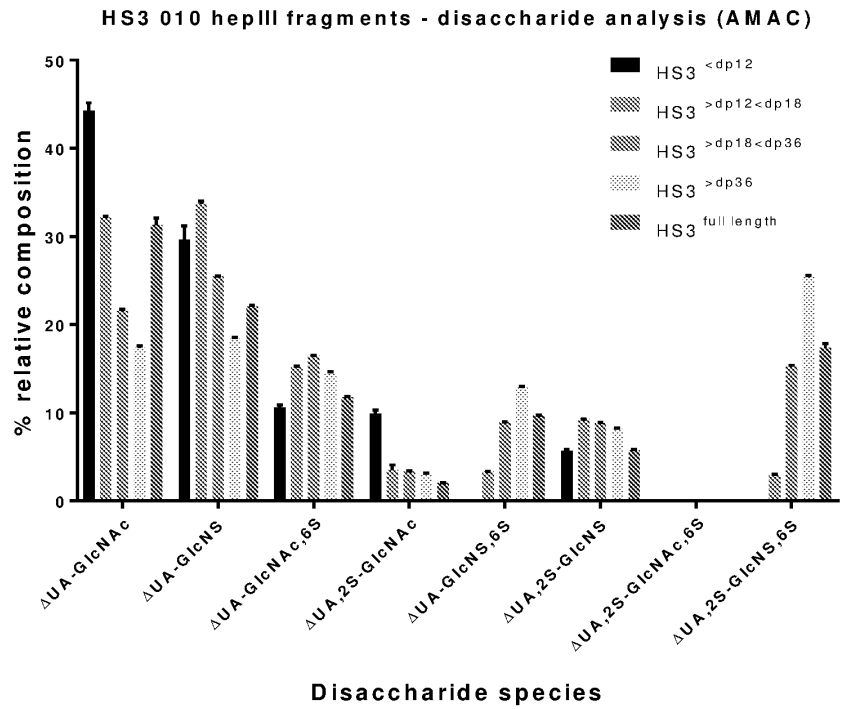


Figure 17

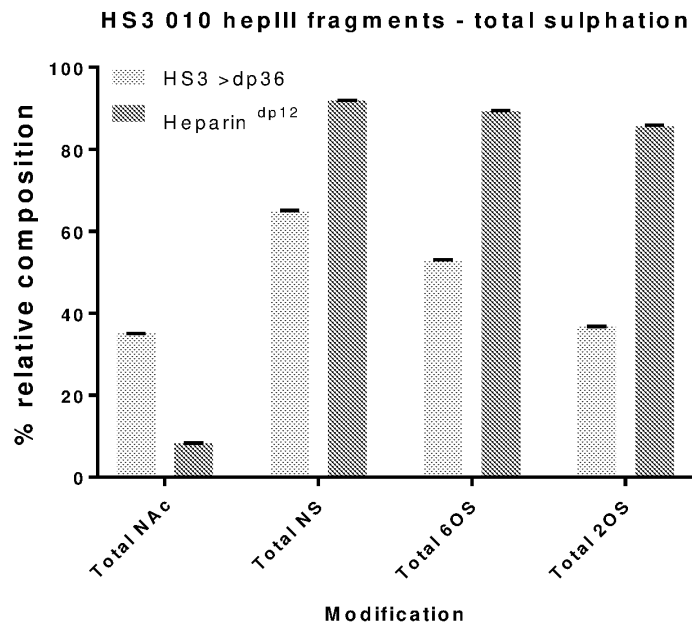


Figure 18

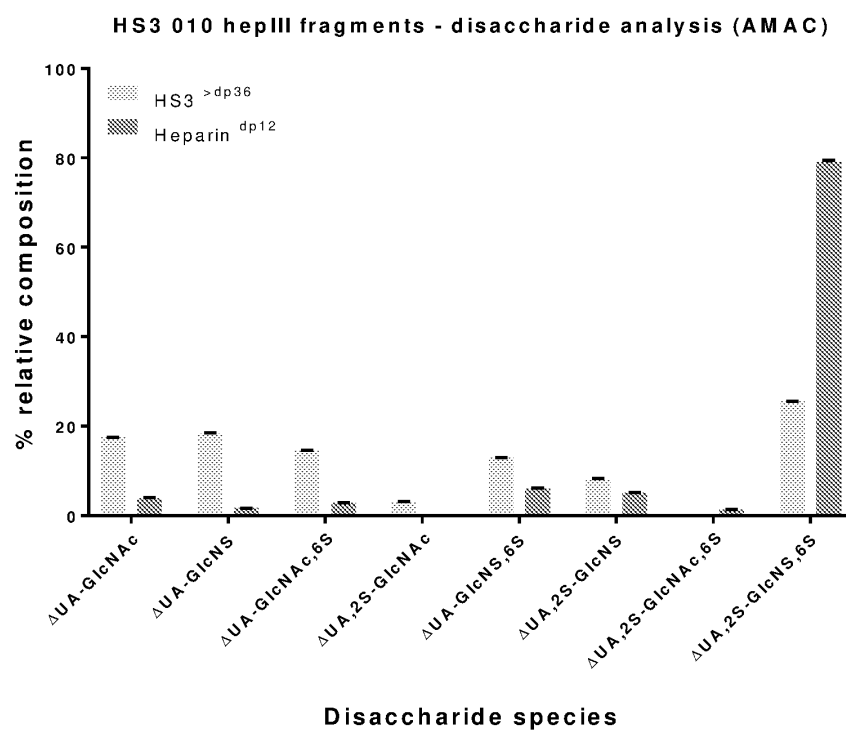


Figure 19

	HS3 >dp36	Heparin dp12
ΔUA-GlcNAc	17.40	3.92
ΔUA-GlcNS	18.41	1.65
ΔUA-GlcNAc,6S	14.48	2.88
ΔUA,2S-GlcNAc	3.12	0.00
ΔUA-GlcNS,6S	12.97	6.03
ΔUA,2S-GlcNS	8.16	5.13
ΔUA,2S-GlcNAc,6S	0.00	1.37
ΔUA,2S-GlcNS,6S	25.47	79.02

Figure 20