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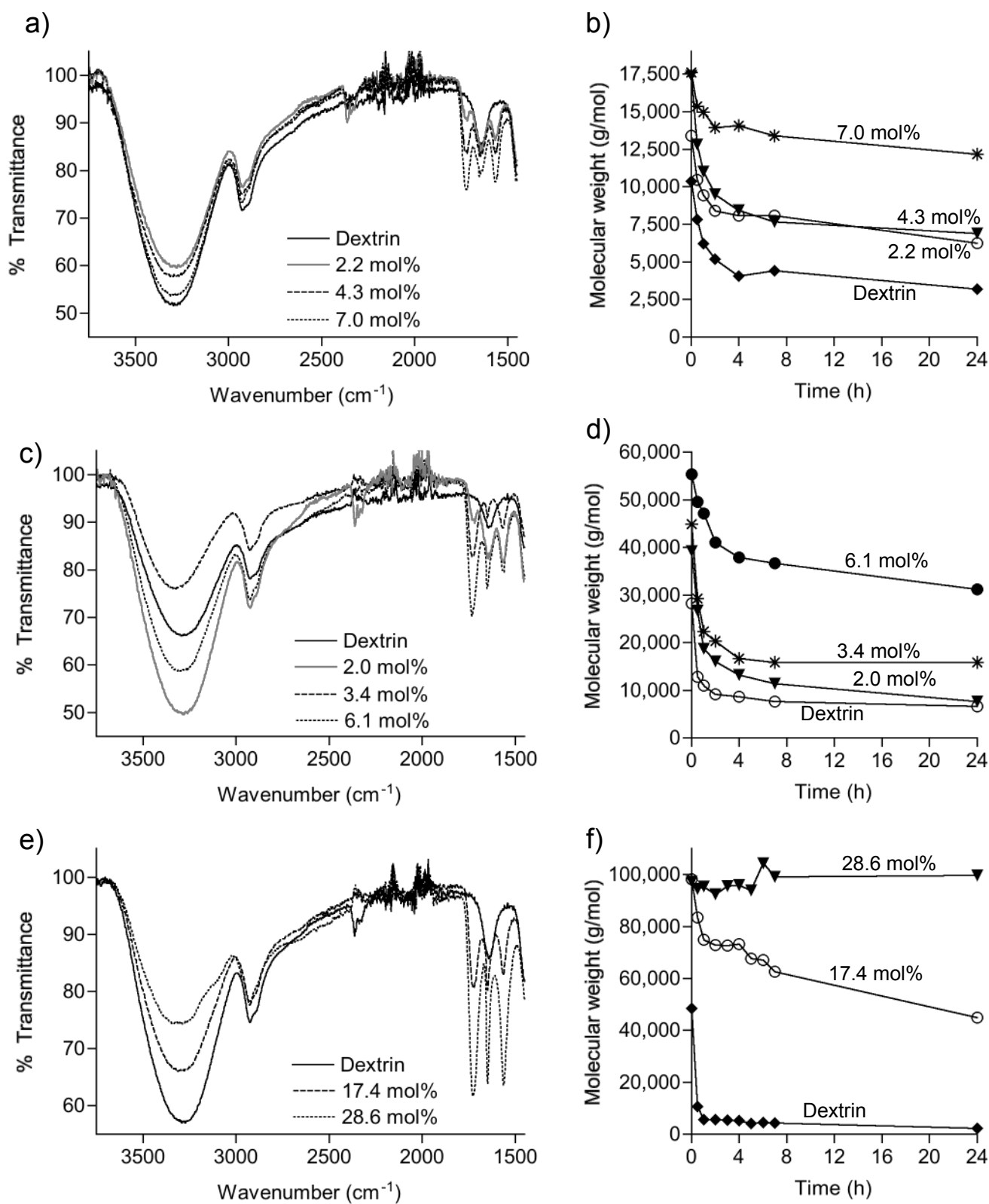
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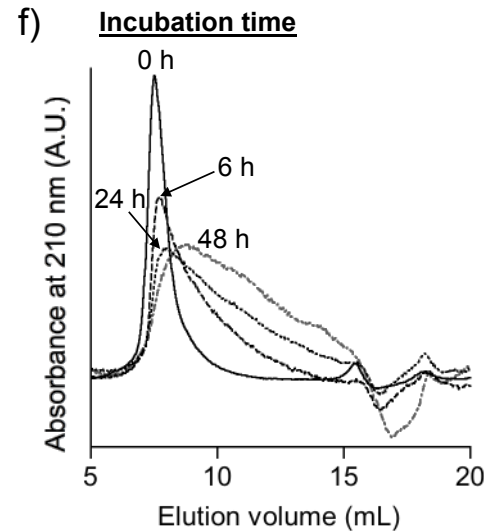
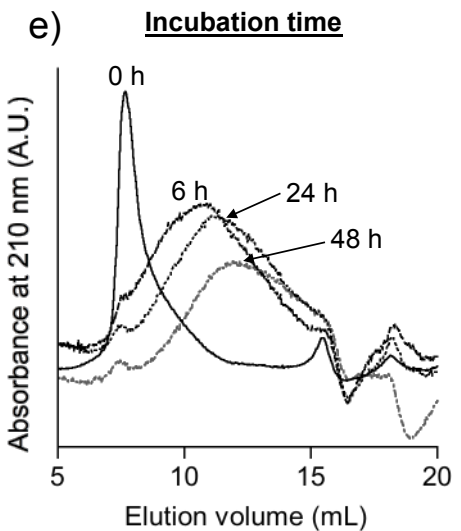
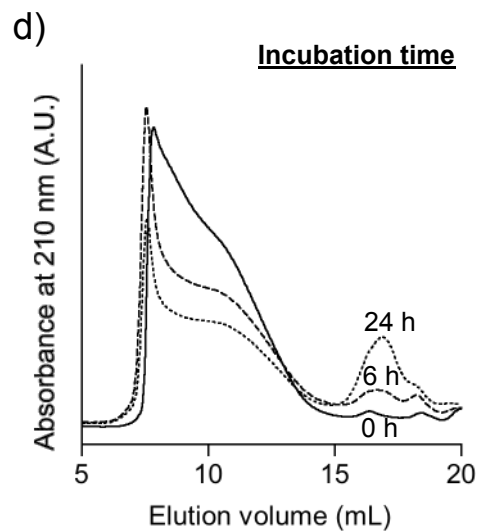
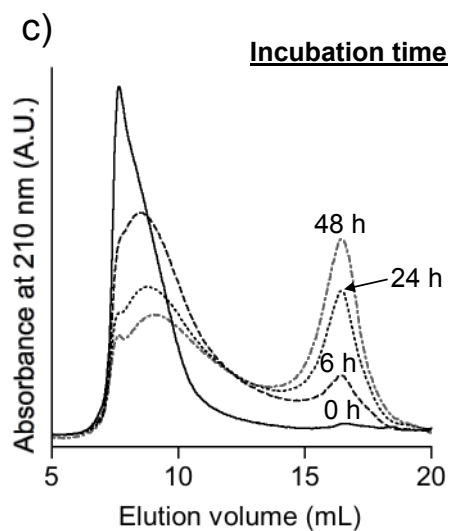
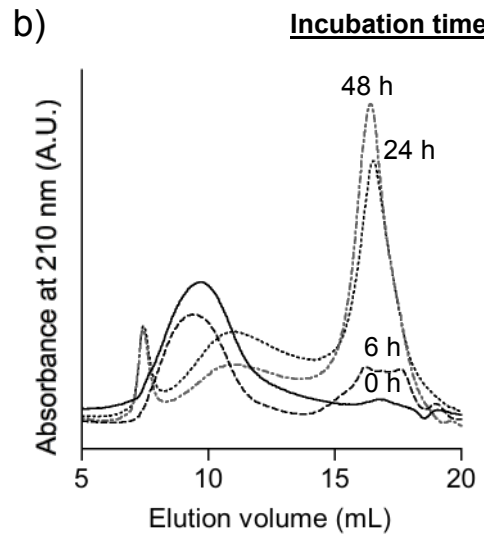
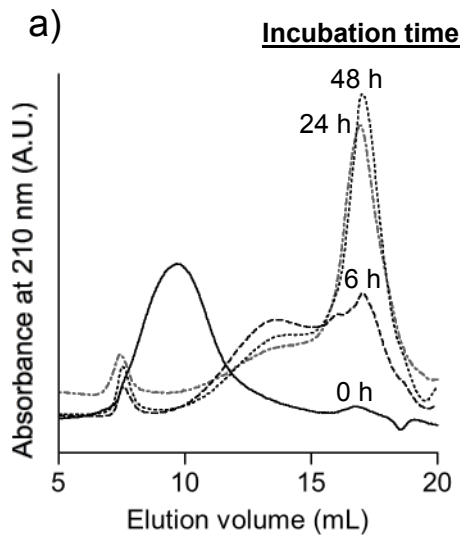
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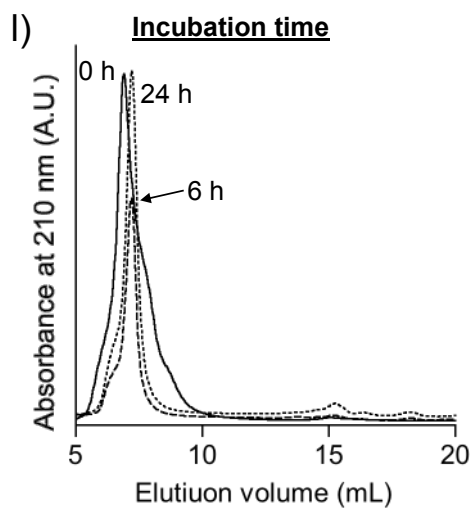
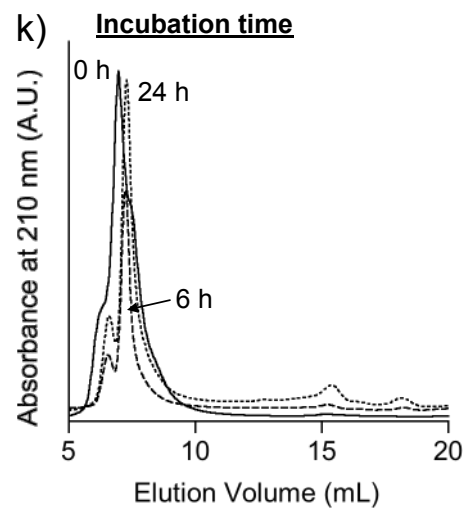
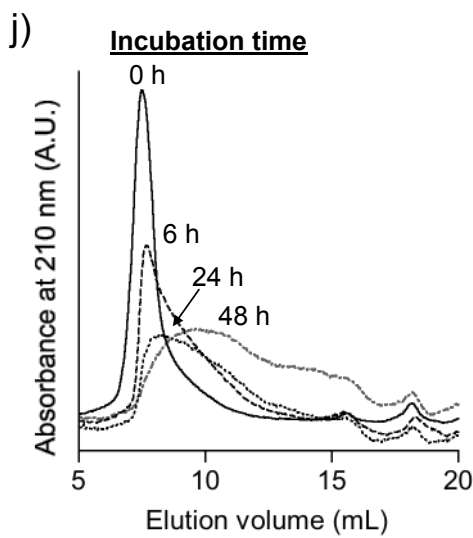
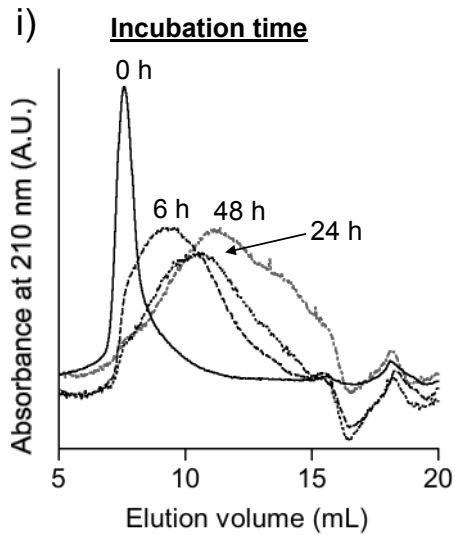
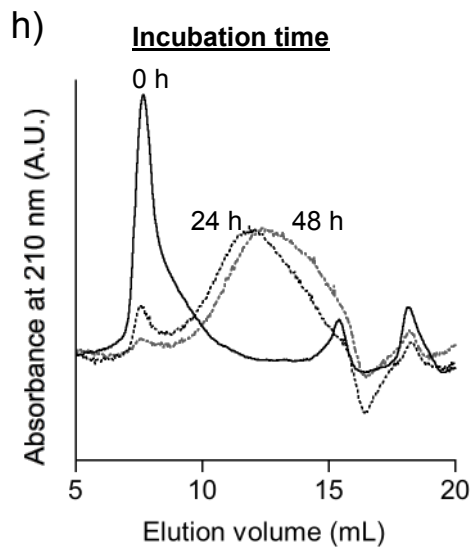
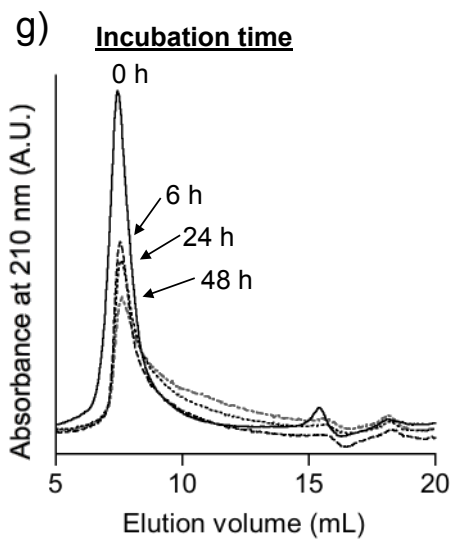




**SI 1** Characterization of dextrans and succinoylated dextrin intermediates. Panels (a, c, e) show FT-IR spectra for (a) 10,500 g/mol dextrin and its succinoylated intermediates, (c) 28,000 g/mol dextrin and its succinoylated intermediates, and (e) 48,500 g/mol dextrin and its succinoylated intermediates. Panels (b, d, f) show the change in relative molecular weight in the presence of amylase (100 IU/L in PBS at 37 °C) by GPC of (b) 10,500 g/mol dextrin and its succinoylated intermediates, (d) 28,000 g/mol dextrin and its succinoylated intermediates, and (e) 48,500 g/mol dextrin and its succinoylated intermediates. ( $n=1$ ).



**SI 2A** FPLC elution profiles of dextrin-colistin conjugates (3 mg/mL) from a Superdex 75 FPLC column, following incubation with amylase (100 IU/L in PBS at 37 °C). Panels show conjugates containing (a) 7,500 g/mol dextrin with 1.1 mol% succinylation, (b) 7,500 g/mol dextrin with 2.5 mol% succinylation, (c) 7,500 g/mol dextrin with 8.3 mol% succinylation, (d) 7,500 g/mol dextrin with 21.3 mol% succinylation, (e) 10,500 g/mol dextrin with 2.2 mol% succinylation, and (f) 10,500 g/mol dextrin with 4.3 mol% succinylation ( $V_0$  = void volume (7.7 mL)).



**SI 2B** FPLC elution profiles of dextrin-colistin conjugates (3 mg/mL) from a Superdex 75 FPLC column, following incubation with amylase (100 IU/L in PBS at 37 °C). Panels show conjugates containing (g) 10,500 g/mol dextrin with 7.0 mol% succinylation, (h) 28,000 g/mol dextrin with 2.0 mol% succinylation, (i) 28,000 g/mol dextrin with 3.4 mol% succinylation, (j) 28,000 g/mol dextrin with 6.1 mol% succinylation, (k) 48,500 g/mol dextrin with 17.4 mol% succinylation, and (l) 48,500 g/mol dextrin with 28.6 mol% succinylation ( $V_0$  = void volume (7.7 mL)).

**Table SI 1** Liberated colistin at 48 h (% total).

	4 °C		37 °C		
	PBS	Water	PBS	Water	PBS + amylase (100 IU/L)
<i>1.1 mol%</i>	4.6	5.3	67.3	70.4	79.9
<i>2.5 mol%</i>	1.7	2.8	46.9	40.7	67.9
<i>4.7 mol%</i>	2.4	4.1	37.1	30.0	56.8
<i>8.3 mol%</i>	1.1	2.6	26.2	14.6	40.3
<i>CMS</i>	13.2	10.4	33.0	14.4	-

**Table SI 2** Antimicrobial activity of dextrin-colistin conjugates\* (with and without amylase pre-exposure), measured by MIC assay. Data is expressed as mode ( $n=3$ ). \*MIC value represents equivalent colistin concentration of conjugates.

Bacterial species	MIC (mg/L)											
	2.5 mol%				4.7 mol%				8.3 mol%			
	0	3	6	24	0	3	6	24	0	3	6	24
V4 <i>A. baumannii</i> MDR ACB	32	32	16	128	512	256	256	256	>1024	>1024	>1024	1024
V9 <i>A. baumannii</i>	64	32	64	32	128	128	64	64	1024	1024	1024	512
V19 <i>A. baumannii</i> 7789	32	32	32	64	128	64	64	128	1024	1024	>1024	>1024
V20 <i>A. lwoffii</i> 8065	4	4	4	4	64	32	16	128	128	64	64	1024
V22 <i>A. lwoffii</i> 6056	64	64	32	32	512	256	128	128	>1024	>1024	>1024	>1024
V5 <i>E. coli</i> AIM-1	<1	<1	<1	<1	64	32	16	16	1024	512	512	>1024
V11 <i>E. coli</i> 5702	32	16	8	16	64	64	128	256	512	512	512	256
V24 <i>E. coli</i> 7273	64	128	32	32	128	128	128	512	>1024	1024	1024	1024
V12 <i>K. pneumoniae</i> 5725	32	16	8	16	64	64	128	256	512	512	512	256
V6 <i>K. pneumoniae</i> IR25	512	64	32	64	1024	512	128	256	>1024	>1024	>1024	>1024
V8 <i>K. pneumoniae</i> K3	32	16	8	16	64	64	128	256	>1024	>1024	>1024	>1024
V3 <i>K. pneumoniae</i> KP05 506	16	32	32	32	1024	256	128	256	>1024	>1024	>1024	>1024
V13 <i>P. aeruginosa</i> PA01	256	256	128	128	512	256	256	256	512	256	256	128
V1 <i>P. aeruginosa</i> R22	256	256	256	256	>1024	1024	1024	1024	>1024	>1024	>1024	>1024
V2 <i>P. aeruginosa</i> MDR 301	1024	512	512	512	>1024	>1024	>1024	>1024	>1024	>1024	>1024	>1024
V7 <i>P. stuartii</i> IR57	64	32	32	16	512	256	256	128	>1024	>1024	>1024	>1024