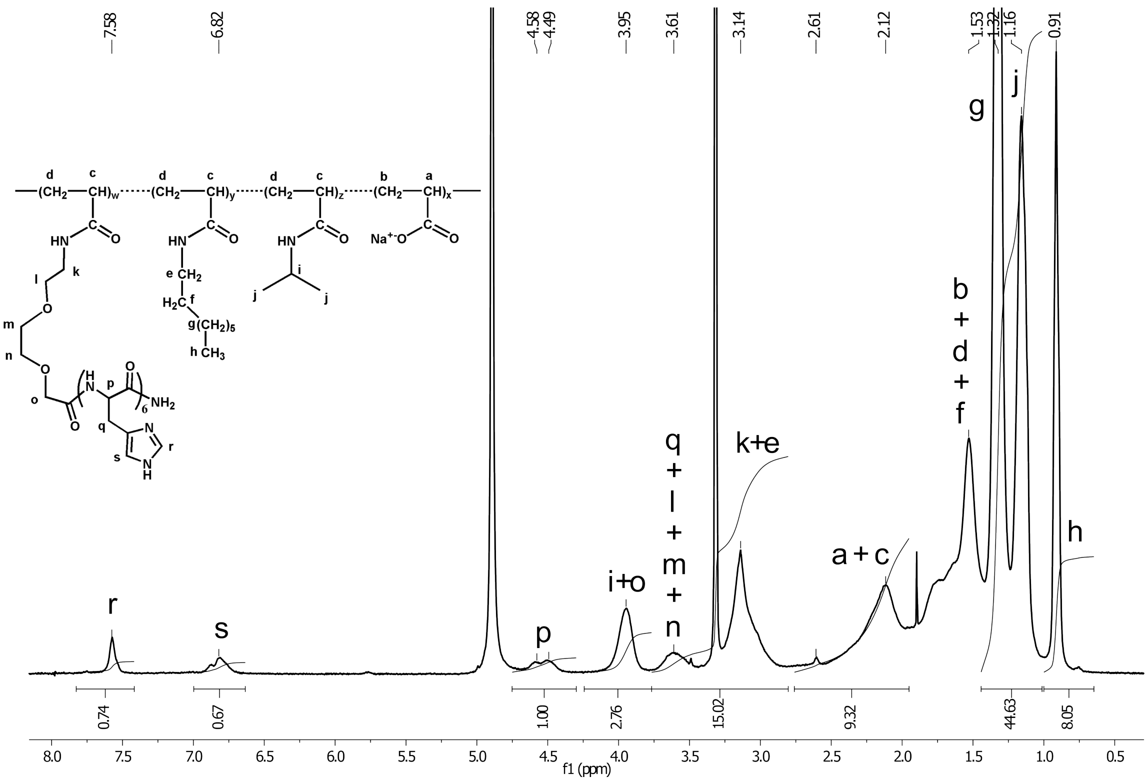
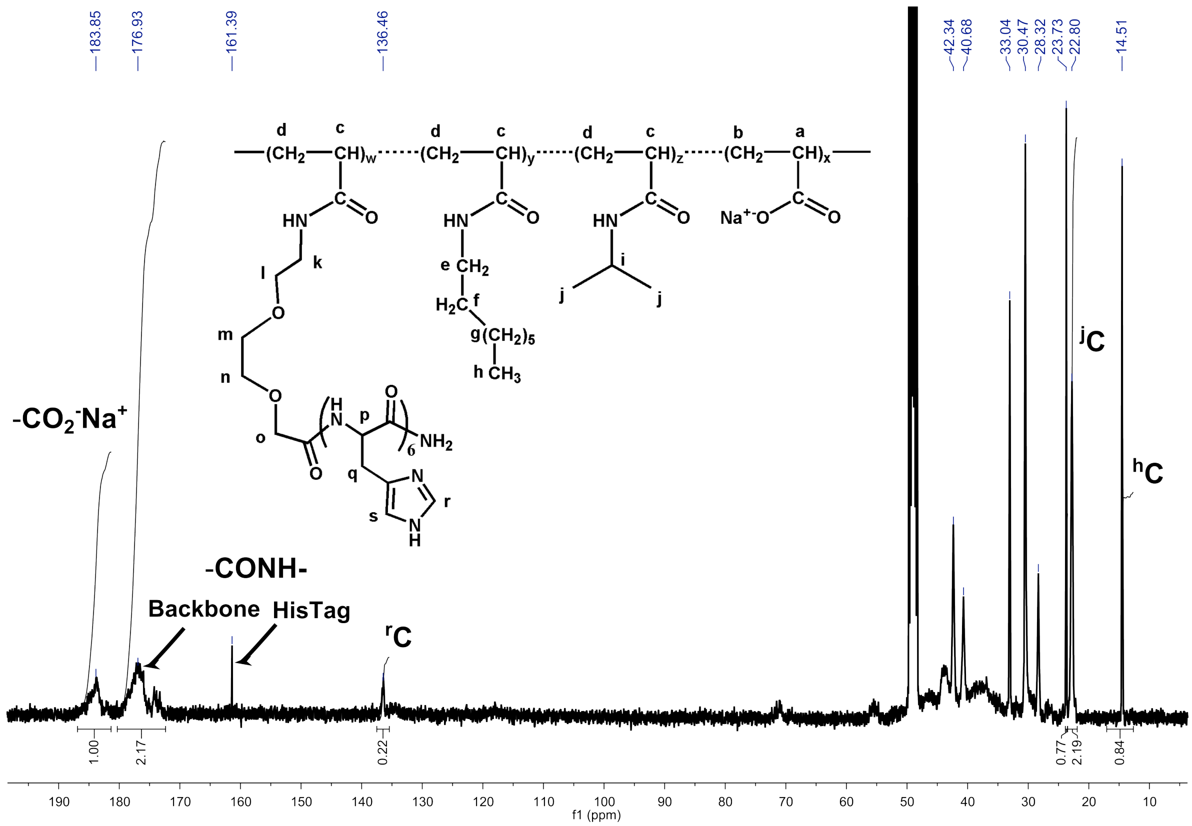
Supporting Information

1. Chemical composition of HistAPol analysed by ^{1}H and ^{13}C NMR spectroscopy



Proton	Number of proton per monomer	δ (ppm)	multiplicity	Integral	Theoretical value
r	6	7.58	Broad singlet	S_1	w
s	6	6.82	Broad doublet	S_1'	w
p	6	4.53	Broad doublet	S_2	w
i + o	2 + 1	3.7-4.2	Broad signals	S_3	$2w + z$
q + l + m + n	18	3.61	Broad signals	S_4	$18w$
e + k	2 + 2	3.14	Broad signals	S_5	$2\ (w + y)$
a + c	1 + 1	2-2.5	Broad signals	S_6	$w + x + y + z$
b + d + f	2 + 2 + 2	1.45-2	Broad signals		$2\ (w + x + 2y + z)$
g	10	1.31	Broad signals	S_7	$10y$
j	6	1.15	Broad singlet	S_8	$6z$
h	3	0.91	Broad singlet	S_9	$3y$

Figure S1. ^{1}H NMR analysis of HistAPol and signal assignments.



Carbon	Number of carbon per monomer	δ (ppm)	Integral	Theoretical value
Free carboxylate	1	183.85	S_{10}	x
Carboxamide	1	176.93	S_{11}	y + z
r	1	136.46	S_{12}	6w
j	2	22.80	S_{13}	2z
h	1	14.51	S_{14}	y

Figure S2. ^{13}C NMR analysis of HistAPol and signal assignments.

The chemical composition of HistAPol was determined according to the following equations:

1) from the signals assigned on the ^{1}H NMR spectrum

$$w = \frac{S_1}{6S_6} = \frac{S_1^{'}}{6S_6} = \frac{S_2}{6S_6} = \frac{S_4}{18S_6}$$

$$y = \frac{3S_5 - S_1}{6S_6} = \frac{3S_2 - S_1}{6S_6} = \frac{9S_5 - S_4}{18S_6} = \frac{S_9}{3S_6}$$

$$z = \frac{3S_3 - S_1}{3S_6} = \frac{3S_3 - S_2}{3S_6} = \frac{9S_3 - S_4}{9S_6} = \frac{S_8}{6S_6}$$

$$x = 1 - (w + y + z)$$

2) from the signals assigned on the ^{13}C NMR spectrum:

$$x = \frac{S_{10}}{S_{10} + S_{11}}$$

$$w = \frac{S_{12}}{6(S_{10} + S_{11})}$$

$$z = \frac{S_{13}}{2(S_{10} + S_{11})}$$

$$y = \frac{S_{14}}{S_{10} + S_{11}}$$

The chemical composition of the different APols used in the present study is reported in Table S1.

APol	His_6-tag (w, %)	CO_2^- (x, %)	Octyl (y, %)	isoPropyl (z, %)	$\langle M_n \rangle$ ($g.mol^{-1}$)
A8-35	0	35 ± 3	25 ± 2	40 ± 4	4,340
HistAPol-1	1.5 ± 0.2	41.5 ± 4	26 ± 2	31 ± 3	4,800
HistAPol-2	1.3 ± 0.3	38.5 ± 4	24 ± 2	36 ± 2	4,760

Table S1. Chemical composition and weight-average molecular mass of APols. Percentages of grafting were deduced from ^{1}H and ^{13}C NMR analysis for all APols except for HistAPol-1 whose chemical composition was analyzed only by ^{1}H NMR spectroscopy.

2. His-tag distribution on HistAPol particles and MP/HistAPol complexes

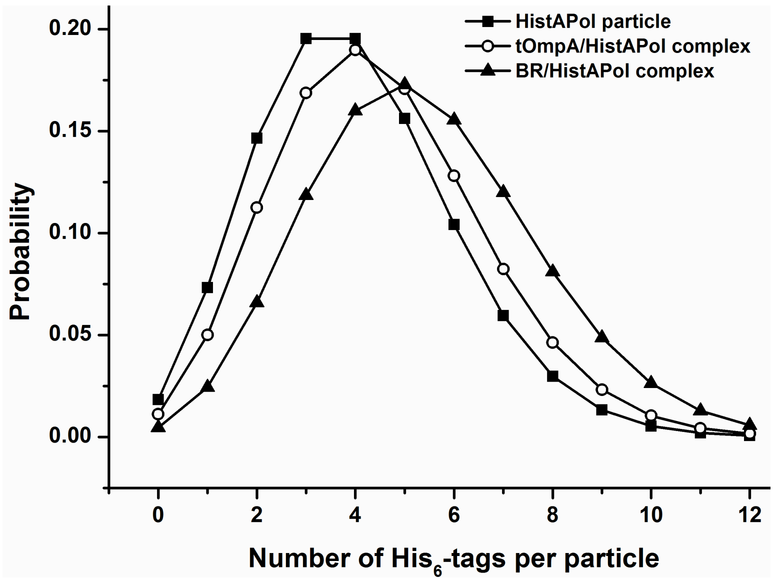


Figure S3. Calculated Distribution of His_6-tags among HistAPol Particles and MP/HistAPol Complexes assuming a Poisson Distribution. The distribution of His_6-tags per HistAPol-2 particle was calculated following the Poisson distribution using a grafting ratio of 1.3 His_6-tags per 100 PAA units (HistAPol-2), *i.e.* an average of ~4 His_6-tags per particle of free APol. Based on the known or estimated values of the average mass of APol bound to each MP, the average number of His_6-tags per MP/HistAPol complex was estimated to be ~4.5 and ~5.4 for tOmpA and BR, respectively. Lines are guides for the eye.

3. UV spectra of A8-35 and HistAPol and determination of extinction coefficients

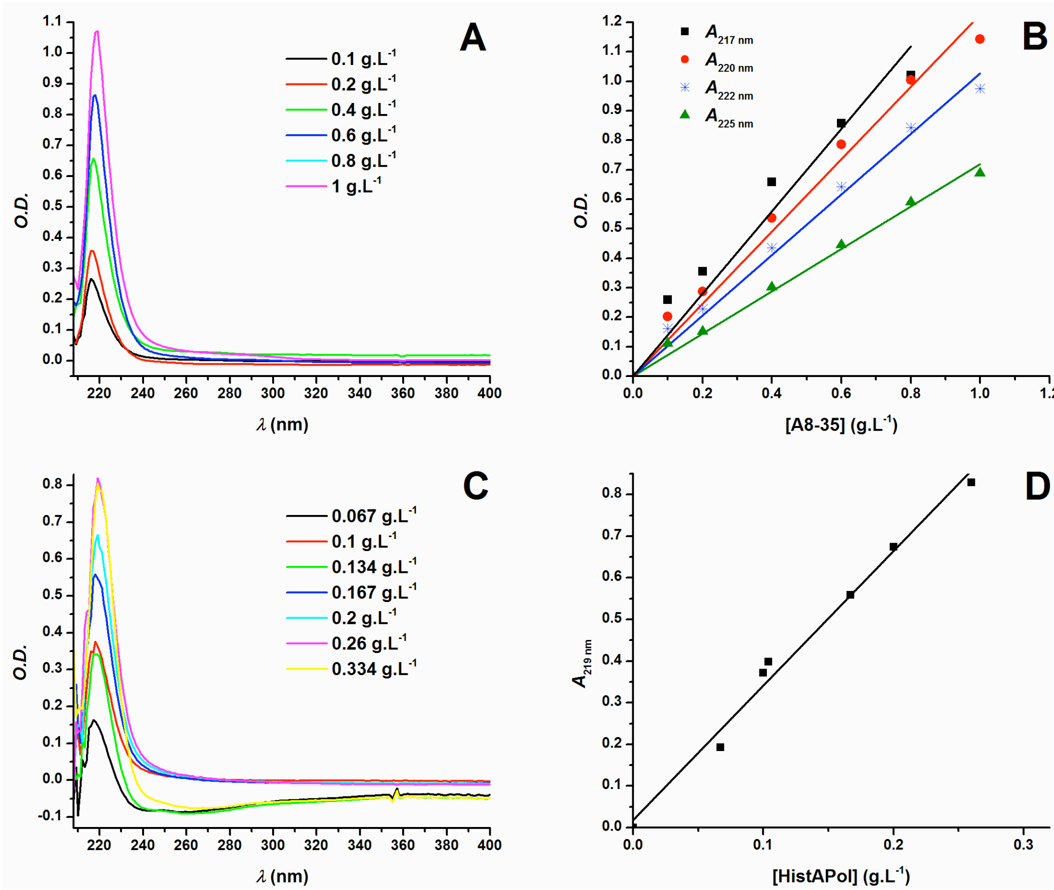


Figure S4. Determination of the extinction coefficient of A8-35 and HistAPol. **A.** UV absorption spectra of A8-35 recorded in Tris/HCl buffer at different concentrations of polymer. The maximum of the absorption peak shifted slightly to the red when the concentration increased. This effect, which is reproducible but more or less pronounced from one batch to another, may be due to the presence of an impurity. **B.** Linear plots of absorption as a function of A8-35 concentration. A good correlation ($R^2 > 0.995$) was obtained only for $\lambda > 220$ nm. **C.** UV absorption spectra of HistAPol recorded in Tris/HCl buffer at different concentrations of polymer. At variance with that of A8-35, the peak of absorption of HistAPol was not concentration-dependent. This is mainly due to the high absorption of the His_6-tags between 200 and 230 nm, which overlaps with that of A8-35. **D.** Linear plot of the absorption at 219 nm as a function of HistAPol concentration.