

Supporting information for:

Fabrication of Surface-Modified Hydrogels with Polyion Complex for Controlled Release

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I. Preparation of hydrogels`

Scheme 1. Preparation of *N*, *N*-oxanonamethylene-bis-*N*-vinylacetamide (5ON-bis-NVA). (Reference: Ajiro, H.; Takemoto, Y.; Akashi, M. *Chem. Lett.* **2009**, 38, 368.)

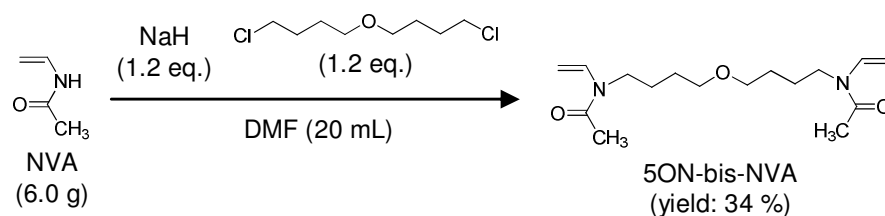


Table S1. Elemental analysis of hydrolysis ratio of amide group in NVF unit

Entry	Hydrolysis Time (h)	H (%)	C (%)	N (%)	[C]/[N]	Hydrolysis ratio (%)
1	0	7.52	51.21	17.98	3.32	0
2	1	6.83	42.82	15.33	3.26	9
3	2	7.23	38.58	15.44	2.91	60
4	4	7.13	37.05	15.41	2.80	77
5	9	7.31	34.74	15.02	2.70	92

II. Length ratio of PIC gel under various pH conditions

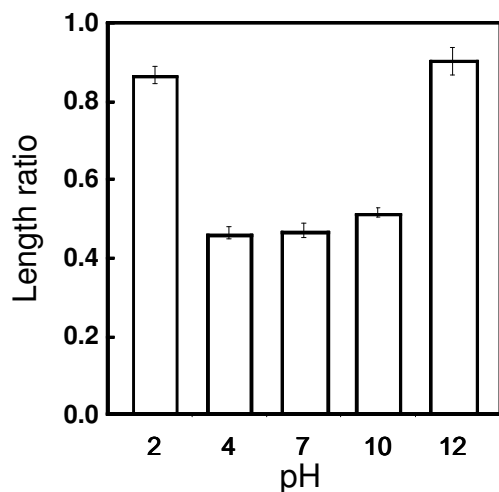


Figure S1. The length ratio of cylindrical-shaped PIC gel under various pH conditions. Length ratio = D/D_0 , where D is the diameter of PIC gel under various pH conditions and D_0 is the diameter of poly(NVA-*co*-NVF) hydrogel (4.4 mm), respectively.

III. pH responsive release of FITC-Dex

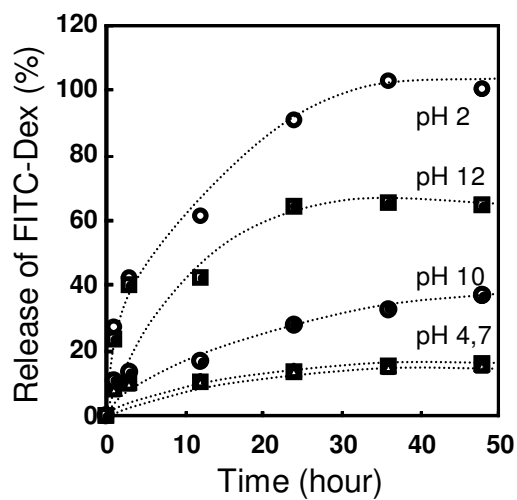


Figure S2. The releasing profile of FITC-Dex from a PIC gel under various pH conditions.