1 SUPPORTING INFORMATION

 $\mathbf{2}$ Specific binding of immunoglobulin G to protein 3 A-mesoporous silica composites for affinity column 4 chromatography $\mathbf{5}$ Kazuma Nakanishi,^{a,b} Masahiro Tomita,^a Hitomi Nakamura^b and Katsuya Kato^{*b} $\begin{array}{c}
 6 \\
 7 \\
 8 \\
 9 \\
 10
 \end{array}$ ^a Department of Chemistry for Materials, Graduate School of Engineering, Mie University, 1577 Kurimamachiya-cho, Tsu, Mie 514-8570, Japan. Fax: +81 59 231 9430; Tel: +81 59 231 9428; E-mail: Kazuma-nakanishi@aist.go.jp
 ^b National Institute of Advanced Industrial Science and Technology, 2266-78, Anagahora, Moriyamaku, Nagoya, Aichi 463-8560, Japan. Fax: +81 52 736 7405; Tel: +81 52 736 7551; E-mail: katsuya-kato@aist.go.jp $11 \\ 12 \\ 13$ 141516171819202122232425



Fig. S1 IgG binding efficiency of protein G-MPS composite.

Binding efficiency was calculated as the capacity of IgG bound to protein G-carrier composite
[µg]/amount of immobilised protein A per 3 mg of carrier [µg]. The experimental method was
similar to that adopted for protein A composite.



3 **Fig. S2** Thermal stability of MPS-protein A composite.

The samples (MPS-protein A composites and protein A solution) were treated at 90 °C for 3 h. Free
denotes treated protein A immobilised to MPS-2.7. After blocking and binding specifically with
FITC-IgG, supernatants were analysed for their fluorescent intensity.

7

1

 $\mathbf{2}$