

Electronic Supplementary Information

The Stabilisation of Receptor Structure in Low Cross-Linked MIPs by Immobilised Template

Rosa M. Garcinuño,^b Iva Chianella,^{a*} Antonio Guerreiro,^a Irene Mijangos,^a Elena V. Piletska,^a Michael J. Whitcombe^a and Sergey A. Piletsky^a

^a Cranfield Health, Cranfield University, Cranfield, MK43 0AL, UK

^b Dpto. Ciencias Analíticas, Facultad de Ciencias, Universidad Nacional de Educación a Distancia (UNED), Senda del Rey, 9, 28040, Madrid, Spain.

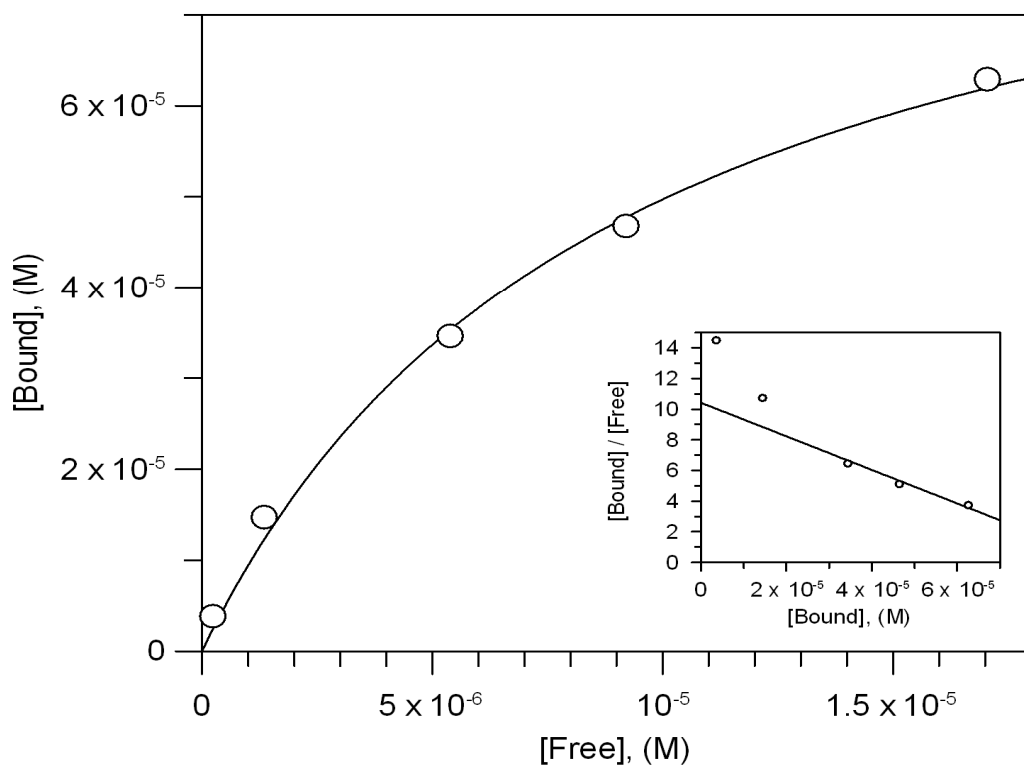
* Author to whom the correspondence should be addressed. Tel: +44 (0)1234 758322, E-mail: i.chianella.1998@cranfield.ac.uk

Binding Isotherms of P1, P4, P9 and P12 and Calculation of Binding

Parameters

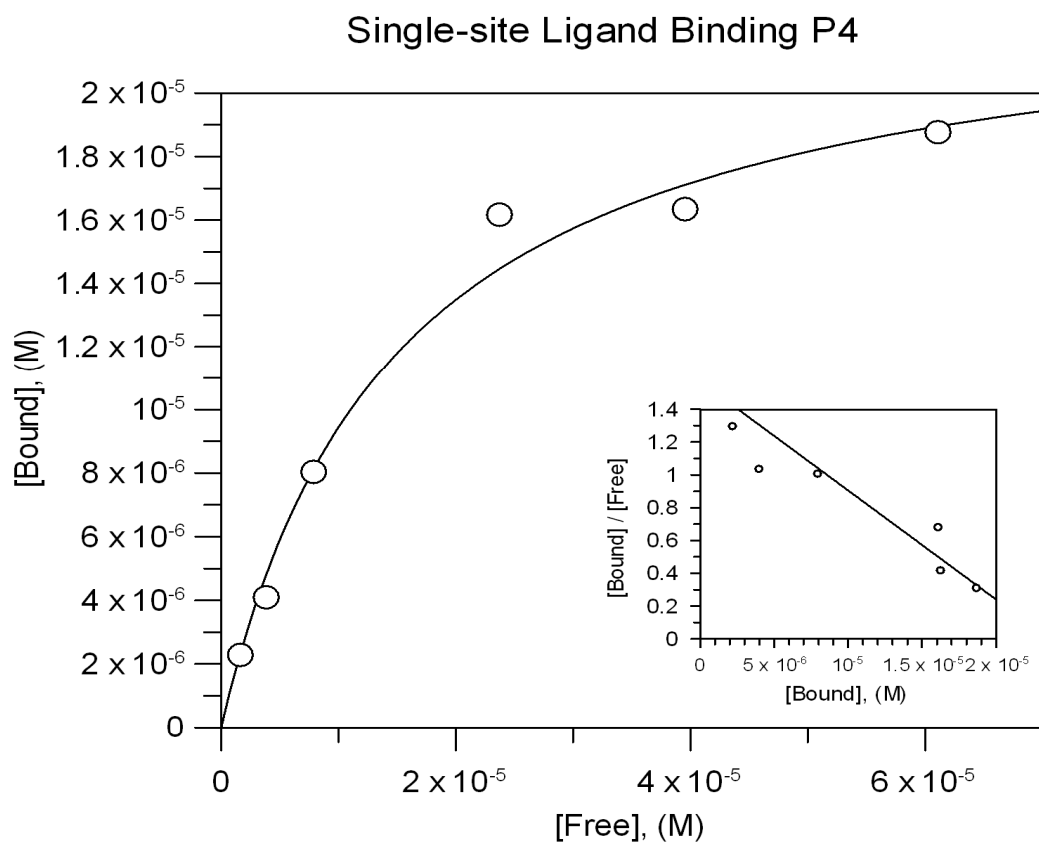
Equilibrium batch binding experiments were performed to obtain the polymer adsorption isotherms and calculate binding parameters. The experiments were performed by overnight incubation with shaking of 20 mg of MIPs with 2 ml of 0.50-10 ng mL⁻¹ of 2,4-diamino-6-methyl-1,3,5-triazine (template, T) prepared in acetonitrile-water (85:15). After removal of the polymer particles by filtration, the quantification of the free T (and consequently the adsorbed T) was carried out by analysis of solutions using the HPLC-MS. The binding parameters (K_d and binding capacity) were estimated by curve fitting the adsorption isotherms to one site Langmuir model using the Grafit package, Erithacus Software.

Single-site Ligand Binding P1



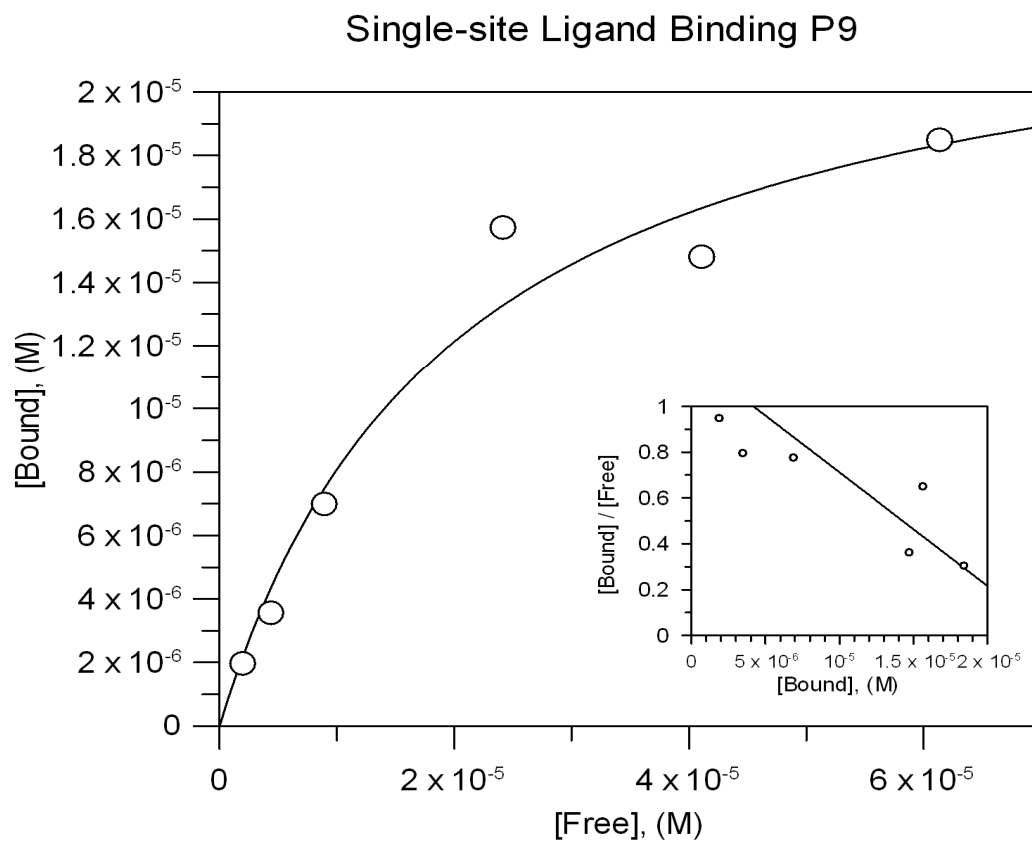
Parameter	Value	Std. Error
Capacity	9.51685e-005	7.00931e-006
Kd value	9.13688e-006	1.43435e-006

Fig. S-1 Fitting of P1 binding isotherm to one site Langmuir model. P1 is a MIP synthesised with 80% of cross-linker and extractable template.



Parameter	Value	Std. Error
Capacity	2.36062e-005	1.82439e-006
Kd value	1.50255e-005	3.34387e-006

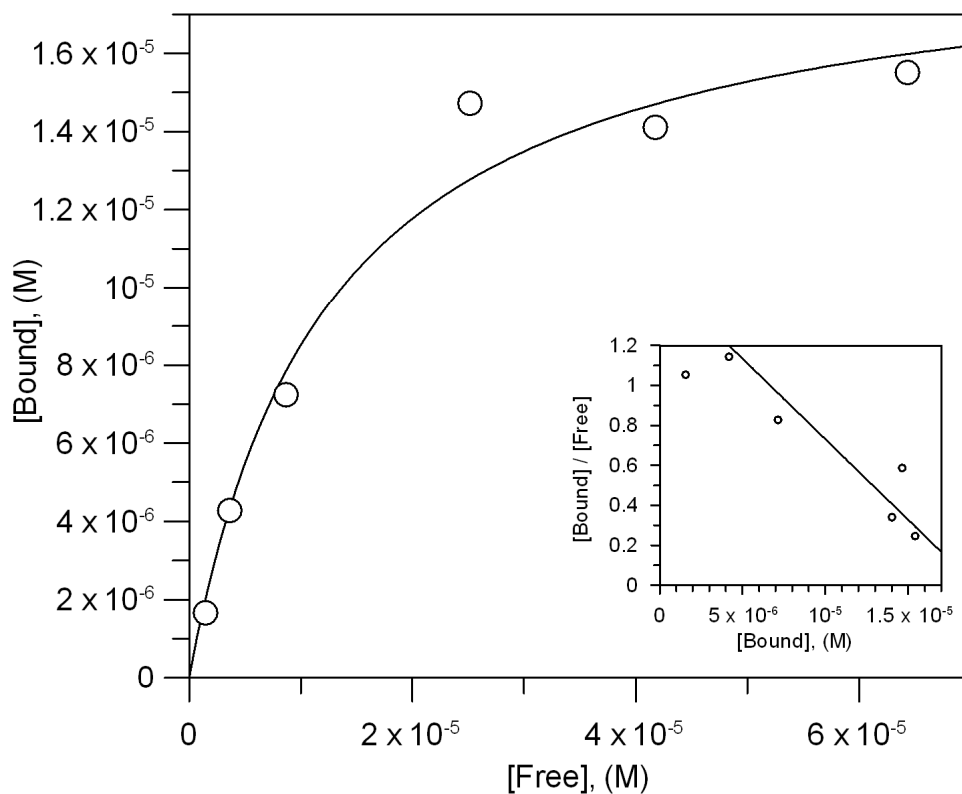
Fig. S-2 Fitting of P4 binding isotherm to one site Langmuir model. P4 is a MIP synthesised with 80% of cross-linker and polymerisable template.



Parameter	Value	Std. Error
Capacity	2.43556e-005	3.43587e-006
Kd value	2.01622e-005	7.31247e-006

Fig. S-3 Fitting of P9 binding isotherm to one site Langmuir model. P9 is a MIP synthesised with 12% of cross-linker and extractable template.

Single-site Ligand Binding P12



Parameter	Value	Std. Error
Capacity	1.90642e-005	1.66250e-006
Kd value	1.23957e-005	3.42555e-006

Fig. S-4 Fitting of P12 binding isotherm to one site Langmuir model. P12 is a MIP synthesised with 12% of cross-linker and polymerisable template.