

Improved Production and Biophysical Analysis of Recombinant Silicatein- α

Emily I. Sparkes ^{1,2}, Rachel A. Kettles ^{1,2}, Chisom S. Egedeuzu ^{1,2}, Natalie L. Stephenson ^{1,2},
Stephanie A. Caslin ^{1,2}, S. Yasin Tabatabaei Dakhili ^{1,2}, Lu Shin Wong ^{1,2,*}

¹ Manchester Institute of Biotechnology, University of Manchester, 131 Princess Street, Manchester M1 7DN, United Kingdom.

² Department of Chemistry, University of Manchester, Oxford Road, Manchester M13 9PL, United Kingdom.

* Correspondence: l.s.wong@manchester.ac.uk

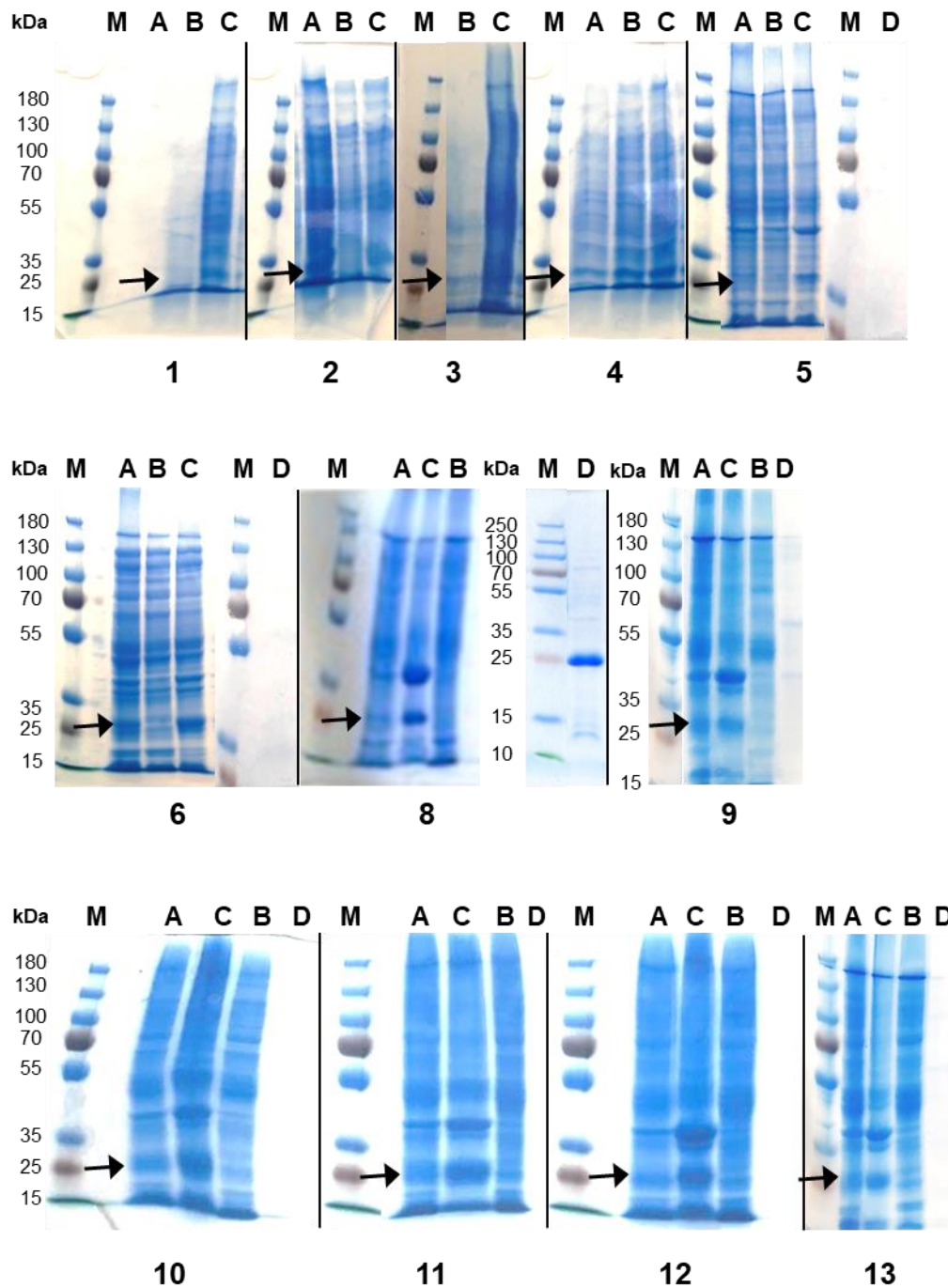


Figure S1. Images of SDS-PAGE gels demonstrating solubility analysis for His₆-Sil α following lysis in various buffer mixtures (numbers below each image correspond to the buffers entries in Table 1). Lanes are labelled as follows: M = marker, A = total lysed protein, B = soluble lysis fraction, C = insoluble lysis fraction, D = post-IMAC fraction. Black arrows indicate presence of protein band of the desired size.

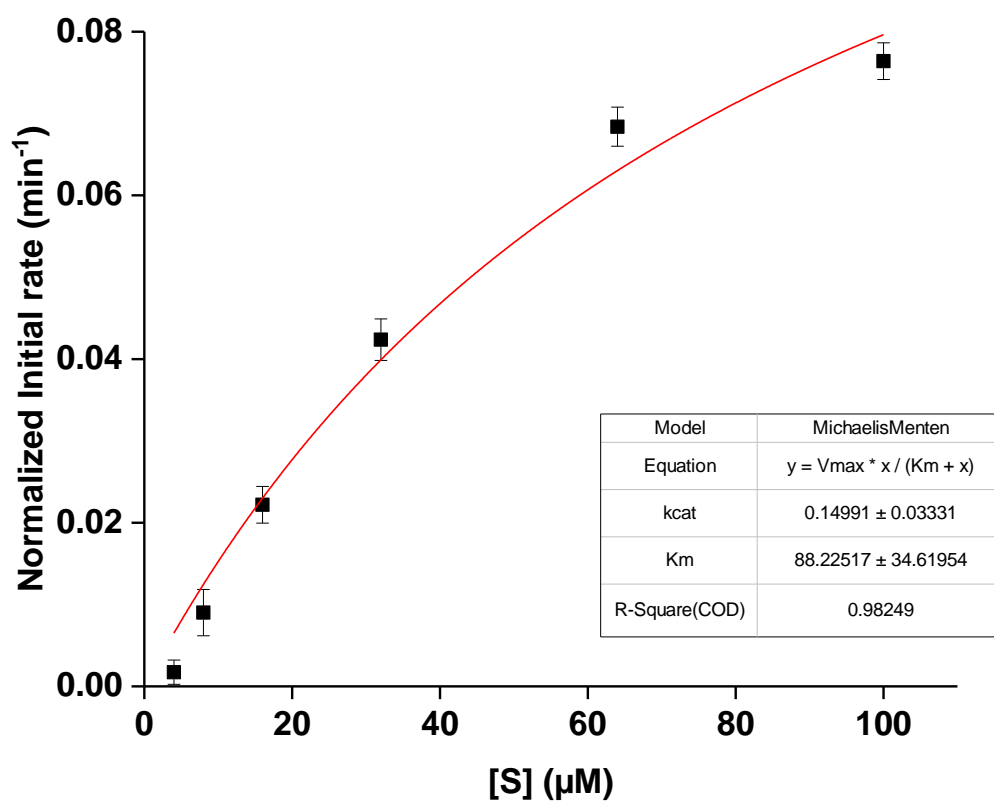


Figure S2. Michaelis-Menten plot of reaction velocity against TBDMS-ONp substrate concentration and best fit line. The error bars represent the standard deviations. The extracted parameters from the best-fit curve are shown in the inset, with standard deviations where appropriate.